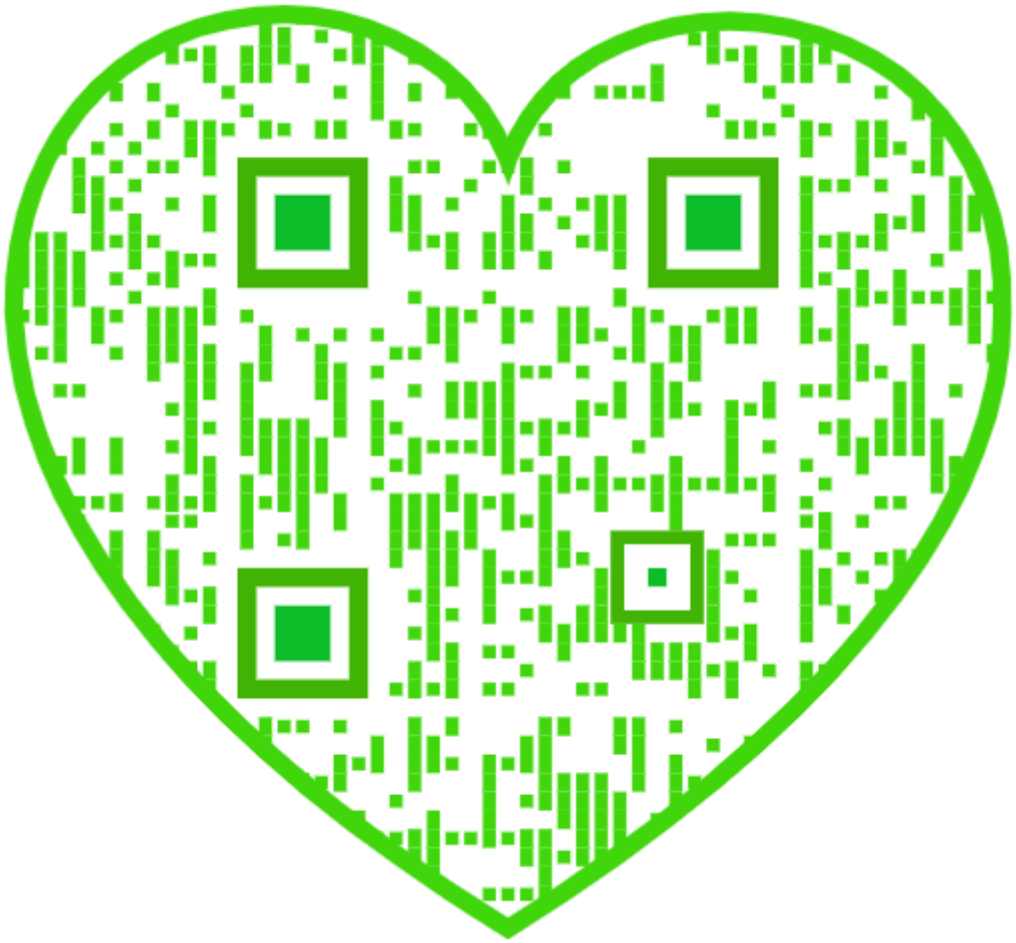
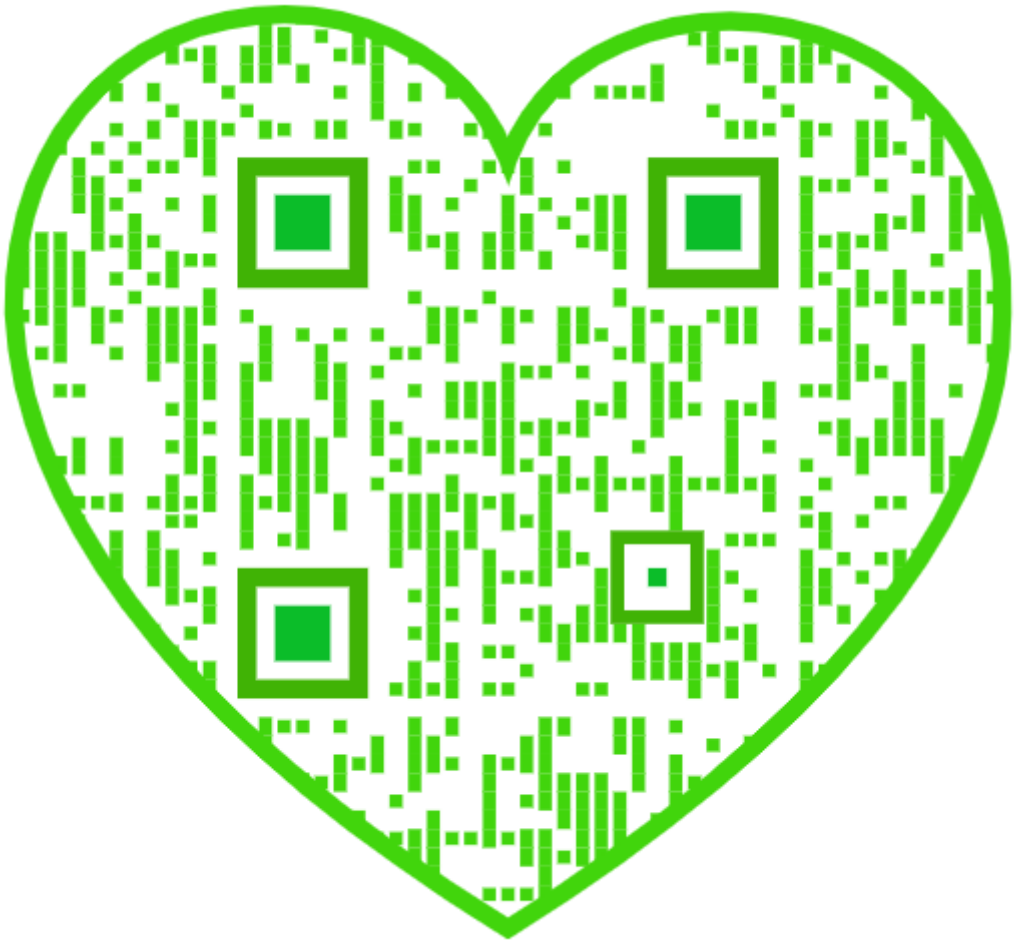
Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.





1912

The Why and How of Shade Trees and Evergreens

"How to Grow and Market Fruit"

This is our complete, 150-page Guide-Book for Fruit-Growers. No one need make any serious mistakes, lose trees, or fail to get big crops of fruit and bigger profits, if he will study this book and put its suggestions into practice. It is up-to-date, reliable, plain and practical.

How to prepare land, select trees and varieties, how to plant, fertilize, prune, spray, thin, pick, pack, and sell—to be brief, it goes into orcharding thoroughly. But get the book itself—it will answer your questions and make plain and simple of solution nearly all your puzzling orchard problems.

Ninety pictures, well printed, strong covers; price 50 cents. We will send a copy free with a $5 order for any kind of stock, or if you buy the book now, we will rebate the 50 cents when you send us a $5 order. **This book should be worth at least $10 to you.**

Have You Our Latest General Catalog?

On account of our peculiar soil, a light sandy or clay loam, and of our salt air, our trees develop remarkably strong, fibrous roots, grow bigger, are fuller of vitality and cleaner than it is possible to get trees grown in other locations. For this reason, our general catalog, which explains how we grow trees, and gives the latest information on varieties, planting, etc., is considered an invaluable reference book by everyone in the business. No one who plants fruit trees should think of going ahead without first studying our prices, descriptions, color-plates, etc. This book is free to intending planters. If you do not have a copy, write for one.

Why Not Buy an Eastern Shore Farm?

You will find this to be one of the best sections in America for fruit-growing, general farming and stock-raising, because of our deep, fertile, clean, easily worked soil, our long growing season, and our nearness to markets. You can sell all you raise for highest markets rates at the railroad station nearest your farm. If interested, write for folder and ask questions.

Come to Berlin

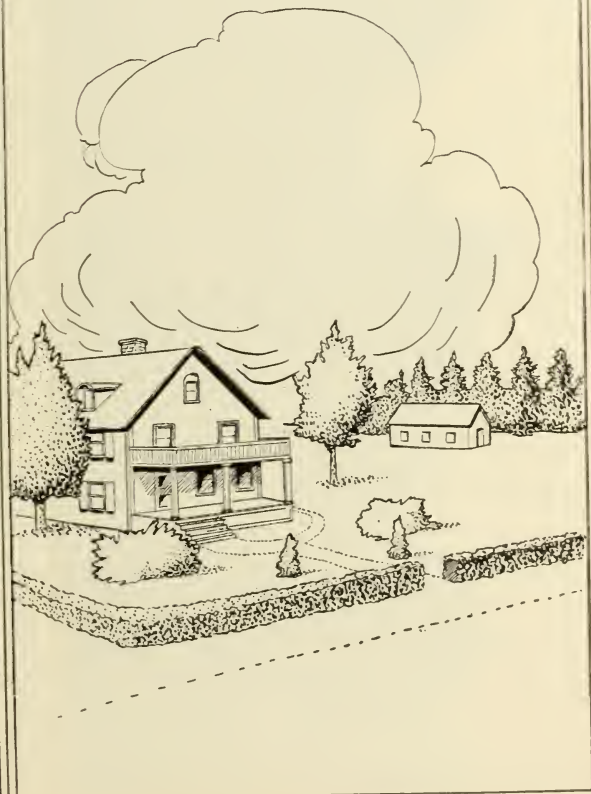
Anyone who is going to plant trees should come here for a day or two at least. We can prove to you that we grow the best trees that are produced today, and that will benefit you. We also can show you how you may make your orchard pay. Ocean City is only seven miles from Berlin. To show our good will, we will pay your hotel bill during your stay in our town.

Harrison's Nurseries

J. G. HARRISON & SONS, PROPRIETORS

BERLIN, MARYLAND

The Why and How of Shade Trees and Evergreens



Copyright, 1912, by Harrison's Nurseries

The trees and plants to produce this planting cost $15 for good large sizes. Though very simple, and requiring almost no care, the result is neat, beautiful, comfortable and useful. It really is wonderful, when one pauses to think of it, the amount of difference this $15 worth of trees, etc., has made in the comfort at this farm home, and in the selling value. Anyone buying the place would offer $200 more because of the trees.

Mixed planting that effectually cools the house and yard. Four 10-foot Silver Maples, and five 3-foot Norway Spruces. Total only $3. Norway Maples, Blue Spruce, Hemlock, White Pine, etc., would be better, and a $5 Privet hedge should be added. $15 is little enough to appropriate for planting at such a home.

Why It Pays to Plant Shade Trees and Evergreens

THE CASH VALUE OF SHADE TREES

Three thousand two hundred and seventy dollars for a row of shade trees a mile long! This is the cash value set by Government Forest Service men on despised Cottonwood trees forty years old, for their lumber-value only. The men go on to prove that the protection given crops and buildings by this mile-long row of trees during the forty years is worth thirty-five thousand five hundred and eighty-five dollars.

The report was made after these same experts had examined a hundred and thirteen such plantings. Had the row been of Norway Maples, American Elms, Ash or Beeches, or some other high-grade shade trees, its value would have been double this amount. This is not theory, or a dream of some college professor; but careful figuring of actual benefit that was accomplished. Equally valuable results can be secured from the same kind of planting in almost any neighborhood.

Now, the ordinary person isn't interested in a row of trees a mile long for his own place, nor does he care to wait forty years for the benefits to begin, and then have to "kill the goose to get the golden egg." But these figures show the possibilities of real money-profit from planting shade trees. They establish the fact that money put in trees, planting and a little care, is money very wisely invested. Indeed, money could earn no higher interest in any good bond or stock that your bank could buy for you.

THE REAL, THE BIG BENEFITS

But shade trees and hedges do not stand for forty years before they give any return. Where do you, friend, draw the line between things that are useful and things that are ornamental? When you set a certain value on a pair of shoes, a horse, or a piece of real estate, what part of that value do you credit to sentimental considerations, and what part to practical reasons?

The usual man or woman will own to very little interest in "the distant hills and the crimson sunset." On a matter-of-fact farm there is no money to waste for frills. In an ordinary town-home the getting of necessities has blunted the desire for much decorative material. Many think themselves well off when they have a few clothes, some potatoes and a bunk.

People who have "died at the top" refuse to recognize the practical value of things they class as frills, and they place shade trees and live fences at the head of this so-called "useless" list. They fail to see that when they do a good day's work it is because they had a good sleep the night before, and are well satisfied with their situation, quite as much as because of their knowledge or strength.

If they sell a property for an increased value, they do not take into account that the growing up of the trees had more to do with attracting the buyer than the rapid growth of the town or country. When boys elect to stay on the old farm, they do not realize that it is mainly because of the homestead pride based on neat hedges and shaded yards. In fifty different ways, the "frills" actually produce more real, tangible benefit than tools that are used every day.

The value received can not be measured or weighed, nor counted in dollars, but it's there just the same. With plenty of the right kind of trees, and fences of living plants that are kept trimmed in

clean-cut lines, a home becomes the neatest place you know of—you are proud of it, you bring your friends there, and you want nothing better than to stay there always.

THE COMFORT OF MAPLES ON A HOT DAY

But the practical person has to be shown, and we are prepared to do it. You like to be out-of-doors in summer, say on Sunday afternoons and other such times? You can't be comfortable in the glare of the sun; but if your yard is surrounded with a line of Norway Maples, there will be plenty of the finest kind of resting-places on the grass. Out under those thick Maples it will be cool and comfortable. It's just the place to take a paper or a book, or to entertain visitors.

The middle of the yard should not be planted. There you want a smooth, open space of grass. But around the edges—on the outside, instead of a wire fence, have a Privet hedge about five feet high and two feet thick. Inside this hedge you can plant some lilacs if you wish, or some other flowering shrubs. Maybe the "sweet-sixteener" of your house will want to plant some roses. There should be eight or ten feet, usually, between the live fence

(Upper) Just reaching "the comfortable stage." Five Sugar and Norway Maples, two Norway Spruces and an Apple tree. Cost to plant, with 9-foot Maples, 4-foot Spruces and 6-foot Apple, only $5. (Lower) Two attractive homes at Seaford, Del. Eight 9-foot Maples, two Pear trees, one 5-foot Birch, one Catalpa Bungei, and about seventy-five yards of hedge—3-foot Privet. Total cost, only $18.

and the tree trunks, though if you haven't much space the trees can be planted right along the hedge. You can see over the low hedge, and the folks outside can see in as much as it is good for them, yet there is a sufficient degree of privacy.

Maple-leaf cover does not seem to be thick enough to weaken the grass growth, though it produces the coolest kind of shade. Grass does not thrive in the full sun, unless given frequent mowings and more frequent waterings; but under the Maples it gets thick and green. Farmers will appreciate this. When the corn has to be cultivated and hay made, or wheat and oats cut, there is little time left for running the lawn mower or holding a hose an hour or so a day.

In fact, when those sultry, blistering hot noons come, it is much pleasanter to come in to dinner and rest a while in the dark, cool shadows of the Maples than to take any exercise at all. Picture the farmhouse with its green shade in front, and on many nice days the table set out under the trees, where there always is a light wind going even on the hottest day. Contrast this with the stuffy, sweaty kitchen-dining-room, where everybody hurries to finish eating in order to get out to the north side of the house—that is, everybody but the cook, who has to stand by the stove till the work is done. And didn't someone remark that woman's work is never done?

SHADE TREES AND COOL SLEEPING-ROOMS

No matter how fine the summer evening after a sultry day, you get "tired resting" after a while. It is time to go to bed. Now, if the trees have shielded the roof, weather-boarding and windows of your house from the afternoon sun, the rooms will be cool and airy. But if the sun has shone through the windows till the hills shut off its hot rays, you will merely retire into a bake-oven, and you can depend on at least three hours of moist meditation before you go to sleep. Toward morning the bedrooms will cool off, but then it's time to get up and run your weary eyes out over scorched grass and dusty ground in the unprotected yard.

The same applies to the house all day long. Where the sun can strike roof and sides directly, there is no comfort in summer, unless it is in the cellar. Those of the family who have to stay indoors most of the time can appreciate this best. A row of trees extending around from the east,

across the south side, and ending in a clump toward the west will insure coolness in the house. The trees seem to absorb the heat. It is always fairly cool beneath their protection. In this case the trees mean more than mere enjoyment for you a little while each day or week. They mean the difference between decent and impracticable living conditions; between a comfortable, attractive home and a place in which one merely exists from day to day. The influence of home surroundings is reflected in the lives and character of those who live within.

Town-houses, on account of the large amount of heat radiated and reflected from the paving, should be protected by trees. Country-houses seem to suffer from the effects of hot winds more than town-houses, and should be protected just as much. In planting for this purpose it is well to select varieties of shade trees that will grow taller than the house. Those on the east and west sides can be lower, if you wish, but toward the south, a generous length of shade should be high enough and close enough to the house to shield the roof at midday. Arrange the planting so as not to cut off the views, but to retain the handsome vistas that you like so much.

Poplars grow fast, but are not good trees. Better plant Maples, Elms, etc. With the seven 10-foot Poplars and 100 yards of Privet hedge, 18-inch plants, this planting would cost about $12. With 9-foot Norway Maples instead of Poplars, it would cost only $2.30 more, or with Silver Maples, $2 less.

WHAT SHADE TREES PROTECT AND SAVE

Brief mention needs to be made of other services rendered by shade trees. Imagination will take care of the details when the facts are pointed out. Suppose your house and barn are fifty yards or so apart, or other buildings are located only that far away. If one burns down, the other is pretty sure to catch if there is no barrier between. The heat itself will be enough to crack the window-panes. Trees between will prevent this danger—they will be pretty well destroyed themselves by a fire, but they will save your buildings, and that is service enough.

Again, there may be an ugly, raw bluff, or a filthy looking tannery, or a black coal-breaker right near your house. On a farm, it may be the barn or hog-pen that you don't exactly regard as the most beautiful thing in the landscape. A row of shade trees will cut off this view, and give a beautiful, pleasing wall of green. Let Grape-vines or other climbers run over the trees, and you will have a windbreak and a year-round screen that can't be beat. Sometimes Pear trees are used for such screens, and they make very good ones. The screen idea will produce great improvements around many homes.

Shade trees planted close together, two or three rods back from a path or road, will keep snow from drifting over it. The drift will form a few feet inside the line of trees, but will not extend far. When trees are planted thickly close to the house, there is a great difference in the life of paint. It often has come under our notice that the paint on the side of a house protected by trees, after several years, apparently is in as good condition as when first put on; while not ten feet away, on an unprotected area, the very same applications are worn by sun, rain and driving sleet till the wood is bare.

If the trees can protect the outside of the house like this, it easily is seen how they help with heating the inside. The force of wind and storm is broken before it reaches the wall. It does not penetrate. One man who has a nine-room house in the country says that he used to burn from fifteen to nineteen tons of coal in his furnace every winter, but now, since his tree protection has grown up, he uses less than ten. That little item more than pays the entire cost of his trees.

A combination of windbreak and screen is worth

having for the space where clothes are dried. This will help on windy days, will insure privacy as to the state of your washable wardrobe, a matter which is no one's business but your own, anyway, and will make the drying operation cleaner by decreasing dust in the air. On the average farm it wouldn't be a bad idea to screen off the woodpile, either, though it may not be necessary to protect it from dust. It seldom is neat enough to be exhibited to admiring visitors.

HELP TO GARDENS BY SHADE TREES

A thick row of shade trees will modify the temperature of a garden or field. The complete explanation of how this comes about is rather lengthy, and involves more than one would suppose at first glance. Both the soil and the air average warmer in a protected area. You can plant stuff in the spring one or two weeks earlier, and the freezing date in the fall is later by an equal time.

Tender vegetables that you could not grow at all in the open garden can be produced with perfect success in a garden with shelter-belt protection. The moisture in your garden will not evaporate nearly so fast if you have plenty of tree protection.

Example of good planting for farm or small town, where there is plenty of space. The little Evergreens in the foreground are Arborvitæ, Juniper and Spruces, the shrubs are Snowballs, while all the shade trees are Maples. Everything in sight, excepting the Canna beds, could be bought, in good planting sizes, for $15.

A handsome arrangement is to make a triple line of shade trees, set rather close together, between garden and yard. This of course implies that the garden lies away from the direction of the cold air flow. Those interested in arranging a protected garden should study the explanation and directions on the subject in our book, "How to Grow and Market Fruit."

COLORS AND FRAGRANCE OF SOME SHADE TREES

There are trees which bear flowers, for those who want more than green leaves and shade. The blossoms usually come rather early in May, though some species bloom in June and July. Horse-chestnut is typical of the class whose blossoms are not perfumed, while Locust flowers can be smelled a mile. It is good to have one or two of such trees among the more dignified Maples.

Spring and summer effects, however, are only part of the beauty of shade trees. Fall is when you are rewarded for all your trouble in planting and growing them. When days are cool and you don't care for shade, you can't help but care for the wonderful, wasteful, incomparable colors of the leaves. From the time the first ones flutter to the ground in sudden winds of August, till in November, when the last dark brown ones go flying and catch in the hedges, the trees are a real exhibition in the handling of artistic colors.

It may be that you live in a country where there are plenty of woods left. If not, you can remember how it used to be. But you know those September and October days when the hills, from bottom to top, were one gorgeous display of every color under the sun, from green to richest red. Golds and yellows are most plentiful, because there are more forest trees whose leaves turned those colors.

Some hills show more color than others. You can pick out the Hickory trees, the Walnut trees, the Maples and Ashes and Beeches. It invariably is a grander sight than the most expensive display that a Broadway ever saw. Anyone except an artist gets more real inspiration from this color-show of leaves than from the finest art exhibition. It lasts for weeks. You cannot have a big forest in your yard or near your home, but you can have enough trees to make your display complete, and then the autumn months will be the best of the year, even better than the growing months of May and June.

THREE SUGGESTIONS FOR FARMS

Where chickens can not be allowed to run at large, their yards should be shaded It is a well-known fact that eggs produced in quarters which become overheated do not show a high percentage of fertility. We often hear cautions against too much confinement for breeding hens, but the real trouble lies not so much in lack of room as in overheating. A dozen shade trees will remedy this condition. The thickest-growing kinds should be planted, as the chickens like cool, dark retreats. Do not depend on low, thin-foliaged trees that let wavering blotches of sunlight through. Such shade is not cool.

In pastures it is well to plant shade trees if there are none growing. Cattle or horses will not eat all the time. They like to lie down in cool places after they have grazed a while. If they have this chance, they make good use of the grass they consume, and produce more pounds of meat or of milk. The darker the shade is for them, the better, for it helps them to get away from flies, and they seem to like it better.

The third suggestion is for a farm timber-belt. Ordinarily this is called a wood-lot, but that is a

One of those cool, protected places that we all like. Nine Sugar and Norway Maples, 8 feet high, and two Spruces 5 feet high. If you had this place, would you take $8 for the trees? They cost a little less. In one case $1,300 was added to the sale price of a Pennsylvania home in four years by $8 worth of trees.

poor term, and should be avoided. From one to six acres are needed, though a quarter- or a half-acre is better than nothing. The trees should be planted three feet apart, and then thinned as they grow and occupy all the space. This little forest will become, in time, as much a part of the daily farm-life as the barn. You will go there for poles, for logs, for walks and picnics.

It is best to do very little pasturing in it, even when the trees are large. If a piece of standing timber can be used as part of the timber-belt, it will enable you to realize all the benefits from almost the start. Aim to maintain the stand in perfect order for all time. Cut out only mature and damaged trees, and those growing too thick, and plant in little trees where needed. The same shade trees that you use in your yard are the ones to select for timber planting.

THE COMPARATIVE COST OF HEDGES FOR FENCES

Hedges of Privet are needed at every home, whether in the country or in town. Even the smallest yard or lawn can accommodate a little hedge. They are simply indispensable in smaller cities and in villages, while around the yards of farm-homes no fences can take their place. Proper planting and trimming the Privet plants will result in a fence that will turn any stock. Where strength is needed, the hedge should be left to become about six feet high, so no animals will attempt to jump over it. The natural thickness of a well-trimmed hedge of Privet is such that you cannot see through it, and nothing will attempt to force its way through what apparently is a solid wall.

Privet hedges are not expensive, contrary to popular opinion. Here are average figures for the cost of three kinds of fence—Privet, wire, and wood—for a period of fifteen years. Fifty yards is taken as the basis. A woven-wire fence is the simplest, and ugliest form for a yard. In a village or town no one should be satisfied with it. The cost of posts, woven wire, 4 feet high, nails, braces and work will run from $20 to $25, depending on the locality, and using the cheapest grade of material. If you want fine mesh, or heavy wire, the cost will run from $5 to $15 more. Fifteen years will see three equipments of wire rust out, and two sets of posts decay.

A wood-picket fence is the next usually seen. To make one of these requires posts, palings and

rails, also work, and the total cost will be close to $30. This is on the basis of the wood pickets lasting the entire fifteen years, but replacing the posts once. Such a fence must be painted three or four times in fifteen years, and this will cost at least $10. The total for the wood fence is $40.

Now the Privet fence will be taller, handsomer and more useful than either of the other two kinds. Also at the end of the fifteen years, it will be just entering on its period of greatest beauty, when both the others must be completely renewed. Setting the plants 6 inches apart, we need three hundred for 50 yards. If a very large size is selected, a size large enough to make a pretty good hedge the first year, say 6-foot plants, they will cost $18. Planting them should cost about $2, and fertilizer during fifteen years about $2. Trimming twice a year is enough to keep a Privet fence in good condition, and the laziest man in your vicinity can trim 50 yards of hedge in two hours. If he is worth 20 cents an hour, which he isn't if he is so lazy, you would have to pay him 80 cents a year for trimming, or $12 for the fifteen years. The total of all these items is $36.

You now have a splendid hedge, 6 feet or more high, 3 feet thick, and so dense you cannot see through it. It is a thing of beauty that you are

Good planting for a quiet country-town home. Should have hedge, not fence. The six Norway Maples, 9 feet high, and the two Evergreens, 4 feet high, can be bought for $6.10. Where space is very scarce, and there is much dust, it is sometimes best to use fence in place of hedge.

proud of, and that attracts passers-by. It has cost you less than a fence of wood, and only a little more than one of wire, while you must subtract from its cost the price of renewing the other kinds of fence if you want to compare the three. You can keep the Privet fence in good condition for an indefinite number of years for less than $1 a year.

HOW TO GROW PERFECT HEDGES; TO PLANT AND TRIM

Live fences, such as this, can be kept at any size you wish. We have seen them less than 6 inches high and 10 inches broad. They can be cut into any shape desired. The odd shapes you sometimes see can be produced as easily with Privet as with anything else. This elaborate designing requires more pruning than straight hedges, but once every month is often enough, unless you wish to play with the plants. The photograph shows some of the effects that can be secured—arches, clumps, globes, straight and curved hedges, round and square columns and posts—in short, anything you may fancy.

The length of time required for a hedge to make a good fence depends on the size plants you use, and on the soil and treatment. With 18-inch plants, which are very cheap, the first year you will have merely a low line of stems. The second year the barrier will take the shape of a fence. By the third and fourth years your fence will turn stock. By the end of the fifth year you can have it any height you want, up to 8 or 9 feet, and as thick as you please.

You can plant Privet either in the spring or fall. Spring usually is the more desirable, though the best time is when you take the notion. A word here about the cost: Many people, in small towns, especially, will wait till an agent comes along and will give him their order, just because he promises to deliver the plants to them at the right time. For this inducement they pay five to ten times what we will supply the plants for.

Look at our prices. We will deliver to you more hedge for five dollars, or for ten dollars, or for a hundred dollars, than you can buy for several times these sums from any agent. Our plants are the very best that can be grown. We absolutely guarantee them in every way. Our methods of growing, cultivating and training hedge plants makes us absolutely sure of their quality and of our safety in guaranteeing them.

PEOPLE WHO MOST NEED PRIVET HEDGES

The people most in need of Privet hedges are those who have a small lawn in a small city or town. In such places there usually is plenty of room to plant, and the hedge is the one feature to be had at a moderate price that will produce at one step anything like the excellent results. If you own a house where there is a yard big enough for a hedge, we urge that you write us at once if this booklet does not contain the information you want about plants, or about using them in any particular.

Farmers should plant Privet generously. Their yard fences should be Privet fences, and many field fences can not be of more satisfactory material. It is not necessary to point out to superintendents of the grounds of schools, churches, cemeteries, factories and all public institutions, that our Privet plants are needed by them. Privet hedge is the best hedge for enclosing such grounds, and our Privet plants are the best to be had. We suggest to real estate men that they subdivide their lots with Privet. Very small plants can be used, so that a large quantity will cost only a few dollars.

Two corners of a Berlin front yard. Beautiful now, and an excellent beginning. Cost about $9 for the entire lot of Maples, Spruces, Arborvitæs, and shrubs, including the Box plants. This planting is about two years old. The fence will be removed soon.

The boundaries will be marked permanently, it will produce a good effect on prospective purchasers, and can be used as a strong talking-point in the sale of lots.

CLEAN UP RUBBISH PILES AND PLANT TREES AND HEDGES!

When a family begins to plant shade trees and live fences, it cleans up the old tin cans, shoes and sticks in the corners of the yard. A neatly planted yard or lawn and a trash pile do not go together. This applies to farm-homes as well as to houses in town. In this way the trees promote health, since dirt harbors disease. Our message to every person who reads this, if you have not already started, is: "Clean up! Have some pride about you. Get rid of the truck. Plant shade trees and a hedge. Make your home more respectable and more valuable. It will bring prosperity to you."

PUBLIC PARKS, SQUARES AND SCHOOL GROUNDS

A public square is a feature of nearly every town in the country. Usually it is the ugliest thing about the vicinity, with its bare cobblestones, or mud-holes, and its dusty grand-stand. Now this is all wrong. Why not have some civic pride and have a real public park that will be of some definite value as a playground. It is easily managed. Very often the old public square is big enough to fill with trees and be used for the purpose. Lacking this, let the town select a suitable dozen acres near-by, and fill it with trees. The planting should be done in a tasteful manner, after a plan suited to the purposes and needs of the situation.

When school-grounds are large enough, they should have a row or two rows of Norway Maples around the outer edges. It takes only a little space. In one town we know there are 20 feet between the street and the building at one side, and 30 feet at the other. The building is 80 feet long and 70 feet wide. Yet close to the fence there are eight of the finest medium-sized Maples to be seen anywhere. There is an iron fence around this yard at present, but right inside it a Privet hedge has been planted, and in a year or two the iron fence will be removed.

It isn't the intention to cut out the air or the sunshine, but to get beauty and relief. One little

girl told her mother, when asked what she did at recess: "I watched the old man cut the hedge. I like to do that better than play tag. We all help him a good bit." The children that grow up there will have that straight, neat, clean hedge as a part, and a valuable part, of their education.

EDUCATE THE PEOPLE OF YOUR COMMUNITY

Anyone who plants is preparing an object-lesson for the neighborhood, whether the shade trees and the hedge are at a private residence or on public land. There is no surer or better way to make a neighborhood attractive than to plant hedges and trees. Do not wait for someone else to act, but do your part now. Plant your own grounds, and do some planting "on your own hook" in the school-grounds, or in any other public land near.

If you own a farm, by all means line the roadside with trees. Norway Maples are fine for this, though there are other good shade trees. Apple and Pear trees also are hard to beat. Make it one of your aims to educate the people of your neighborhood to good planting, and to what constitutes a clean-looking community. You can do this at very little expense to yourself, and without any one's

(Upper) A "yardful" of Evergreens and Maples, about twenty trees in all, worth $20 in big planting sizes. (Lower) Home in Berlin (rectory of lower church, page 19) with fine hedge and Maples. Four trees and one hundred yards of hedge would cost only about $15.

realizing that you are leading them on to better things. One man in a community can create an enthusiasm for good trees that will not die out in a generation.

HOW WE CAN HELP YOU PLANT TREES AND HEDGES

The term landscape architecture often is misunderstood to mean the elaborate planning of a big estate. It really means laying out with care and system any kind of a planting, whether a tiny home-yard or an immense park.

We grow shade trees and hedge plants by the tens of millions. We want to supply them for planting grounds of any and every character. If you want half a dozen Privet plants, we want your order. If you want ten miles of hedge, or trees for a thousand acres of "lawn," come here and we will show you material suitable for your purposes, of the very best quality that can be grown. We are particularly interested in supplying plants and trees for dwellings in city, suburbs or country, for new estates of any kind, for replanting old homesteads, and for parks and cemeteries.

If you know exactly what you want to do, you will not need suggestions from us, either as to what to select or how to arrange your grounds. If you are not sure about these things, however, why not send us two or three photographs of your grounds, from various angles, showing the buildings, the slope, or any other features. We then can tell you what you ought to have. If you can not get photographs, tell us in words as near as you can about the situation. Locate the house, barn, buildings, tell how they face, which directions the prevailing winds come from, where you wish your garden, flower-beds, clothes-line, woodpile, drives, walks, pond, and the exact location of the distinct views you want to keep, as well as any views you want to shut off.

In planning the planting, it always is the aim to keep the center open and covered with thick grass. Around the edges is where the shade trees should go. How far they are apart depends on whether you want them to close the view or not. By planting them 25 or 30 feet apart, and trimming them up high, you can have a most beautiful view out between the trunks. With the hedges beneath, this will frame your picture of the country outside. The Privet can be left to grow high or low according to the needs of the particular place.

If the yard is not so deep from front to back as it might be, you can increase the apparent depth by planting the hedge a little wider apart in front than at the rear, so that the lines seemingly converge. Then trim it very regularly, making it broad and low in front, but slowly growing higher and narrower toward the back. Such a hedge will make the yard look twice as deep as it really is, yet it does not make the yard appear narrower than normal. With this planting, as with most others, you should be careful to keep an open space in the center.

The trees should shade the yard and house, should shut off wind and view from other houses, but should keep open the vistas to the sky-line. If you can do so, plant trees so that this sky-line will be broken—here a high tree, there a line of lower ones, and so on. The length of time it takes for Norway Maples to begin to give shade depends on the size you plant. We can supply big ones that will have a 10-foot trunk and a head almost 6 feet broad the first season, or little ones that will need five or six years to reach this stage. These larger trees are most handsome—square-shouldered, straight, with a thick, leafy top that is a delight.

Two church plantings. At Georgetown, Del., (upper) and at Berlin, Md. (lower). The first should cost about $10 for fifty yards of 3-foot Privet plants and three large Norway Maples. In the lower picture, church and rectory have six Maples each and nearly one hundred yards of hedge, which together should cost about $15.

WHAT TREES TO PLANT ALONG YOUR STREET

All our shade trees are suitable for street planting. The requirements are that the foliage will stand dust and heat without damage. We can furnish trees at the lowest rates in just the right sizes for this purpose. If you know what tree is best for your city and your soil, you will find it listed in our catalogue. If you wish our opinion, tell us the width of your street the kind of soil you have, and whether the location is damp or dry.

THE GREAT GOOD OF EVERGREENS ABOUT HOMES

In some instances it is advisable to plant a few evergreens among the deciduous trees. For instance, evergreens furnish better fire-protection than leaf-shedding trees. They also make better windbreaks and protect from frost better. In laying out a protection for a garden or orchard, let us supply you with some of our Norway and Blue Spruces, or our Pines. It nearly always is desirable to plant at least two or three little specimen evergreens among the Maples and other trees in a yard. Groups, clumps and belts are more interesting when they contain a few evergreens. Birds like to nest in the foliage, and the dark green is very handsome in winter. We have a splendid stock of evergreens for this sort of planting, and we want you to use our trees because the success of your planting will be assured.

WHERE AND WHEN TO PLANT EVERGREEN HEDGES

American Arborvitæ, Hemlock, or Norway Spruce make wonderful hedges when given proper care. The little trees should be planted a couple of feet apart, and for the first few years severely trimmed. It requires only about four years for them to grow to fairly large size. Evergreen hedges always are much larger than Privet hedges, and are not suitable for small spaces. A Hemlock hedge is most beautiful. In its eighth year it should be 8 feet broad and 6 to 10 feet high. Along drives and where an impenetrable screen is wanted, and there is plenty of room, we advise that you plant this sort of fence. It makes a very stout barrier. No danger of any animal breaking through it. It would stop a runaway automobile.

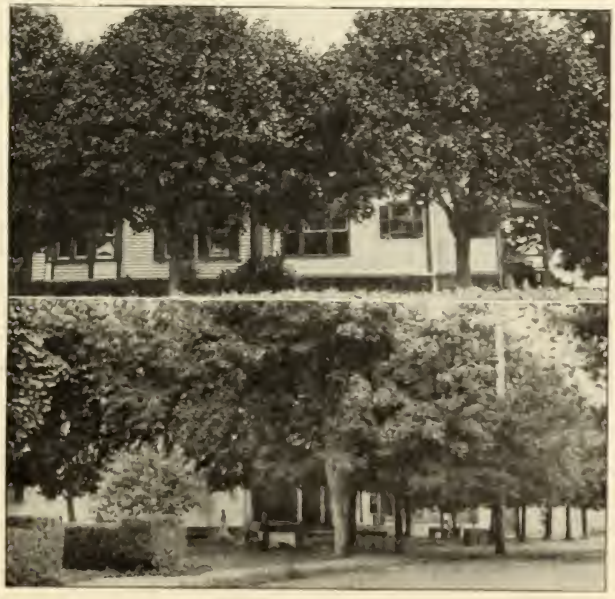
WHY FOREST TREES WILL NOT DO FOR HOME PLANTING

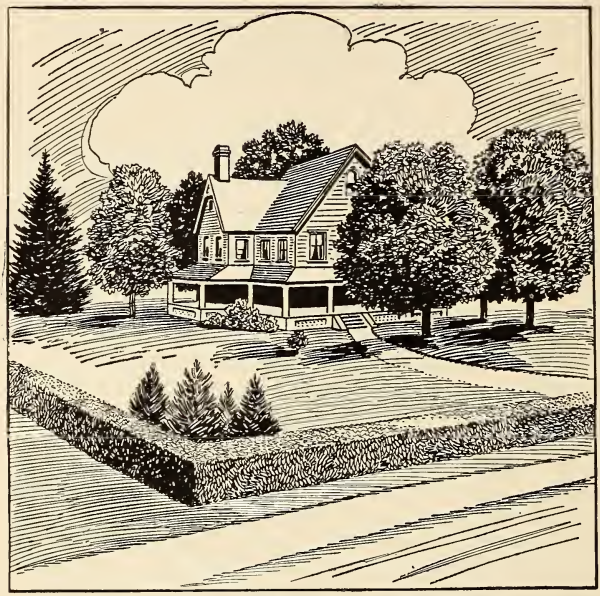
Three main essentials are involved in the growth of every tree—light, plant-food and root-space. A tree grows straight up if it has plenty of light and winds do not blow it over. When it has plenty of plant-food, it develops and enlarges regularly on all sides by even stages, and makes a symmetrical trunk and head. If the roots have soil all around, they form an even network about the tree.

In the nursery all these conditions are made perfect. The trees develop smoothly and make perfect specimens, evenly developed on all sides, trimmed into proper shape, with a straight trunk. They are full of vitality. In getting ready for transplanting, they are root-pruned several times before you get them. This takes the form of cutting the roots sometimes, and other times entire taking up and replanting. In any case it results in the forming of immense numbers of hairy feeding roots that take hold quickly anywhere. Such prepared trees seldom die when moved.

Now with forest trees, the conditions are very uncertain. There may be a rock right at one side of the tree, causing the roots to grow to the other

(Upper) Shows what splendid trees Norway Maples are. Remember that such perfect trees cost only about $1 each when 9 feet high. (Lower) A schoolyard fully shaded by about eighteen maples, costing $15 in large size. The children can be taught to take care of such trees and hedge.





Our suggestion for planting at a small home in country town or on farm. Four evergreens, such as Blue, Norway or Douglas Spruces, Hemlocks, Arborvitæs, Firs, or Pines, say 12 to 24 inches high; six shade trees, Maples, unless you prefer others, in 9-foot size; and 50 yards of Privet hedge. The total cost is about $10. Great latitude is allowed in the selection of both shade trees and evergreens, without changing the cost figures a dollar either way. See chapters on planting and arrangement.

side. You seldom see a perfectly round forest seedling, or mature tree. The trunk likely will be crooked and the head lopsided. Last, the roots are long, slender ropes which reach many feet in every direction. There are few of the fibrous feeding roots in a bunch near the base of the trunk, as with nursery trees.

When you take such a tree up, you break three-fourths of the root-system off. In its new home it has only one chance in three of growing at all; and if it does live, it never makes so nice a tree as though it had been given a proper chance in starting. It is poor economy to go to the woods for trees, when perfect ones can be bought for little money.

INCREASE IN VALUE OF PROPERTY FROM PLANTING

It is the experience of everyone who plants that fifty dollars spent for trees and hedge plants will, in three years, add at least three hundred dollars to the cash selling value of the place. Smaller amounts result in even greater increases in proportion. Your five dollars in trees becomes fifty

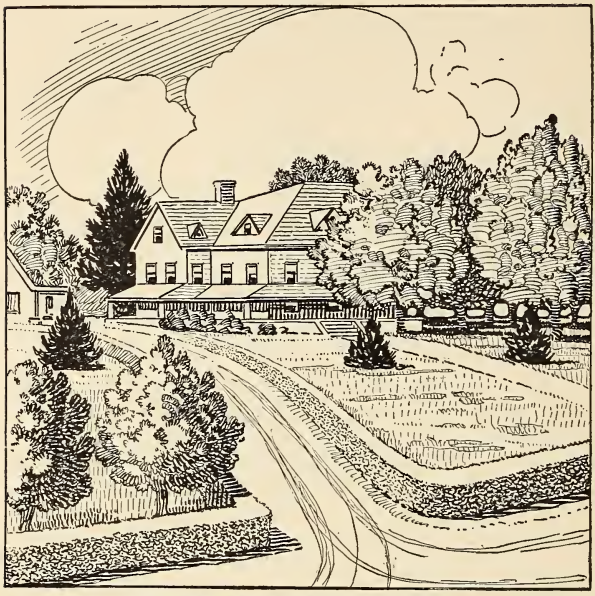
or a hundred dollars when you sell your house. We never heard of a planting that did not result in an increase, totaling away above the cost of planting and care. It is more than beauty you are after when you plant. So far as cheapness and economy go, it is cheaper to plant than not to plant.

HELPS FOR THOSE WHO PLANT

When one has a place that needs trees and hedges, and is convinced that he will get great benefits from planting, there are a lot of questions to be answered: "What shall I plant? Where shall I place the trees and how arrange them? When and how shall I plant them? What will they cost? What will the work cost? How soon may I expect them to make a showing?"

To answer the last question first, they should begin making a showing the first season, certainly the second, *when they are selected and planted properly*. That is the secret of producing fine effects with good trees. What kinds to plant depends on your own taste as much as on your soil, climate, altitude and amount of care you will

(Upper) Two-hundred-yard rows of Norway Maples at farm home near Salisbury, Md. About sixty trees. We will furnish trees such as these, 10 feet high, for $78, or 7 feet high for $19. These are worth $500 to this farm. (Lower) Planting at entrance—Evergreens, Barberry, Privet, etc., worth $8.



Our suggestion for planting at a large home in country town or on farm. About twelve evergreens, 12- to 24-inch sizes, Spruces, Pines, Firs, Arborvitæs, or Hemlocks, mixed, and a dozen Maples or other shade trees about 9 feet high. This planting should have more shade trees, such as long lines along lanes or roads. Two hundred yards of Privet hedge are shown, made with 18-inch plants. The entire lot of trees and plants would cost about $25.

be able to give them. Of course the purpose you have in view limits selection to a list of three or four kinds in any one class. Preparation for planting should be studied in three ways: Consider the character of the place to be planted, the available trees and plants, and how the work should be done.

CHARACTER OF THE PLACE TO BE PLANTED

When you select trees and shrubs for planting, remember that your location, and the kind of place you have, call for certain types. Only a few trees are good everywhere. To plant those not suited to your conditions results at least in misfits; but if you plant kinds adapted to your place they will thrive and make you happy for years and years.

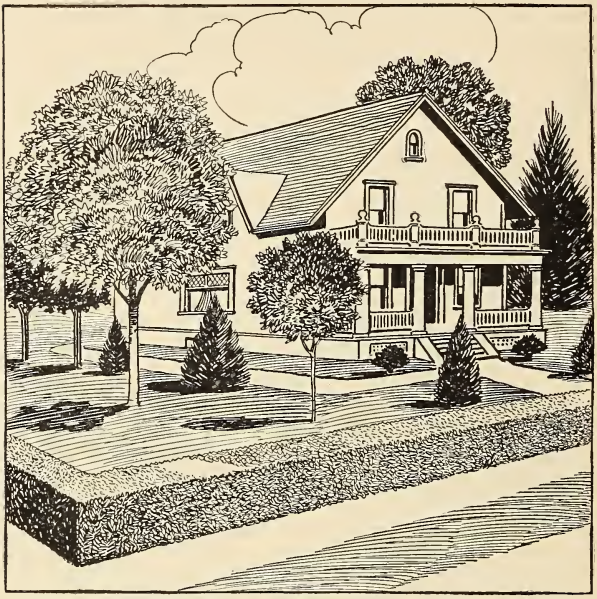
Take the climate and moisture conditions, for instance. In Delaware, Eastern Maryland and Virginia, you may plant with perfect satisfaction such odd shade and ornamental trees and shrubs as *Catalpa Bungei*, English Yew, Bay trees, Magnolias, etc., as well as the standard Maples, Ash, Linden, Plane and Walnut. Even the tender kinds

of Rhododendrons stand the winters, while Irish Juniper, the Retinosporas, Cypresses and Cephalonian Fir neither freeze out nor get to be that dingy brown they sometimes develop in the North. Of course, the hardier evergreens are all right in this section. For northern planting, select the hardiest varieties, like Blue and White Spruces, Scotch and Austrian Pines, Firs, Common Juniper, Western and the dwarf Arborvitæs, Maples, Ash, Beech, Linden, Walnut and Boxwood, Hydrangea and Euonymus.

Some vicinities have "spouty" soil, with lots of ground-water all summer. In such places Hemlock Spruces, Arborvitæs and Pines are right at home. Rhododendrons, Azaleas and Hydrangeas are the shrubs to plant. Among shade trees, Elm, Chestnut, Beech and the Maples also like plenty of water. Other localities have little ground-water during dry seasons. Springs go dry in summer, and there even may be sink-holes in the neighborhood. In such vicinities plant drought-resisting varieties, such as Junipers, Scotch Pine, hardy Spruces, Firs, Hydrangeas, Euonymus, Maples, Ash, Beech, Chestnut, Plane and Walnut.

In almost every hilly section conditions vary greatly. Spots a mile apart have conditions like

Planting around our nursery stables, and residence of Mr. Orlando Harrison. The five hundred Privet plants, 3 feet high, in the one hundred yards of hedge, are worth $12.50. In the lower picture the seven little Evergreens, that some day will make a splendid protection and screen, and the six shade trees, should cost $8.



Our suggestion for planting at a small suburban or city home. You should use half a dozen evergreens, same varieties as mentioned on page 28, in 12- to 24-inch sizes; about four shade trees, Maples, in 10-foot size, and 75 yards of Privet hedge, using 2-foot plants. If you choose large trees for country planting, you should select small, more formal evergreen and deciduous trees for town planting, as Golden Arborvitæ, Irish Juniper, Weeping Beech and Norway Maples. This planting would cost about $16.

those of the country many miles to the north or south, or of drier and rainier sections. If you live in a valley you likely will have more moisture than if you live on high land. The amount of rainfall in your section must be taken into account also, and do not forget the lay of the land—is your location open to winter winds or is it protected? Does your ground face north or south? Is the altitude high or low? Are you close to large bodies of water or in the mountains? All these things influence the climate and moisture. Bear them in mind, and plant accordingly.

The nature of the surface of your ground needs to be considered. If it is flat, we use dwarf or low-growing trees and bushes only for borders along walks or for beds, and plant tall, pointed or spreading trees freely. Scotch Pine grows pointed, as do a dozen other trees, such as Blue, Douglas and White Spruces, Hemlock when given plenty of room, Silver, White and Nordmann's Firs, Cypresses and Cedars, Ash-leaved, Silver and Red Maples. Norway Maples, Chestnut, Texas Umbrella Tree, and Walnut are round and spreading, and look very picturesque in flat localities.

But many places are hilly, rolling or terraced, or have hollows and banks running through them. Here you must plan carefully just how you will arrange your trees. Make use of low ones and tall ones, broad ones and slim ones, according to the nature of the place they will stand in, *and according to their relation to the rest of the planting.* Use plenty of low Arborvitæs, Junipers, Hemlock and Spruces, as trees in hedge and as ground-cover. Use Privet for hedge when the hedge sets on lower ground than the paths, and Barberry when the hedge sets on higher ground; this because Barberry grows so thick right down to the bottom, while Privet lets the light through. Blue, White and Douglas Spruces grow very even, and get tall. Set them in low places. On higher ground set spreading trees, like White Pine, Norway Spruce, the Maples, Elm, Umbrella Tree and Walnut. Under these you may use smaller things. But the idea is to get a broken sky-line—to get away from straight and level regularity. In all these suggestions, evergreens are mentioned by name more often than shade trees, but it is only to show the type of tree, not that such a particular variety must be planted. *Choose the trees that are suited to your conditions and that you like best.* Arrange them so as to get the shade, the protection, and the effect you need.

This picture shows you how Maples and other shade trees are trimmed in the nursery. The cultivation, root-pruning, etc., develop fibrous roots; while careful pruning, trimming and close, even planting insure straight trunks. You can't get these features in wild trees.

Our suggestion for large suburban or city planting. Twelve Evergreens, Hemlocks, Spruces, Arborvitæs, Firs, and Junipers, mixed, large specimens; six shade trees, in large sizes; 50 yards of Hemlock hedge and 50 yards of Privet hedge should be on the average grounds of a quarter acre or less. The entire lot, in large sizes so as to give immediate effect, would cost $45 to $75. If you think of this class of planting, it will pay you to write us, or come to Berlin.

Other considerations that must be watched are the size of your grounds, whether the planting is entirely new, or supplements trees already there, the kind of buildings you have, and whether you are located in country or town. For instance, in a little yard, except for protection, plant small trees; while in a large space use big trees; or again, for the small place, the Norway and other Maples are the best small or medium-sized shade trees, but the Elm is large and suited only for filling big spaces. Among evergreens, Junipers and Arborvitæs are small; White Pines and Douglas Fir are large. The descriptions of the different trees will enable you to choose the ones that best suit. These suggestions are meant to explain the how and why to you. Use your judgment after you have considered all the conditions to be met.

Sometimes you want results quickly, and again you may be willing for the sake of finer ultimate results to wait six or eight years. As an instance of choosing between different trees on this basis, you would take Silver Maple for the fast grower, and Norway for the finer tree; or in the case of an evergreen hedge, Norway Spruce for quickest

growth, and Hemlock for greatest beauty. City plantings usually should be more formal, cleaner and smaller than plantings in the country. They can be given more attention. Because of these points, Irish Juniper is a fine little tree for a city lawn, Hemlock a more spreading and most graceful evergreen for a roomier country yard. Norway Maples and Cut-leaved Beech are good at city homes, and good in country, too; but in the country the Linden and Sugar Maple also are in place.

You may plant for a very little money, or you may spend a great deal. Of course, the cost of planting depends on what you select. Some trees are harder to grow in the nurseries than others, and are worth four or five times as much by the time they are ready for you. Check up the cost as you make out your list. The cost will run about as we have shown in the four sketches. The sketch on page 22 shows a medium-sized country planting, while those on pages 26 and 28 show large and medium-sized city plantings.

FORMS WHICH PLANTING MAY TAKE

"Why didn't I think of that when I planted?" This is a question many people ask themselves after their trees are set, and they see some

Just a suggestion for making a side yard look its best. Twenty feet of Privet hedge, using big plants that will give immediate effect, a Box plant, two Grape-vines, a Clematis and a Wistaria. The total cost of plants to produce the result shown, is only $4.25.

attractive arrangement that hadn't crossed their minds before. To get the very best plan at first, it is well, *before you plant*, to study all the ways in which you may plant, and all the forms into which trees and plants may be combined.

We plant to secure beauty and to build useful arrangements of growing things. As means for accomplishing these ends, we arrange trees and shrubs in the form of live fences, or hedges, of windbreaks, shelter-groups, screens, single specimens, ground-covers, and even in forests. We aim to get shade, colors in leaves during fall, winter, spring and summer, colors and fragrance in blossoms; aim to provide homes for birds, try to provide attractive-looking surroundings, to punctuate the sky-line and to secure general beauty of landscape. A planting may be something to play with and work over, or it may be able to take care of itself, just as we select the trees and shrubs. In any case, a planting should be made up to suit your conditions.

Now, it is "up to you" to decide the proper quantity of hedge and shade and protection and color. Our wish is to see that you overlook no opportunities when you are making your plans. The foregoing is a brief outline of what forms your planting may take, and here following are suggestions of good trees and shrubs that may be used to make up each form.

For *hedges*, Privet is best three-fourths of the time. Its usefulness is explained in other parts of this book. The other time in four, however, you may want a bigger hedge or a smaller one. Hemlock and Norway Spruce make a hedge 12 feet high and 10 feet thick, if you let them grow without trimming, while with Barberry or Boxwood you may have a hedge only 6 inches high. American Arborvitæ, is another good evergreen for hedges, and Azaleas, Rhododendron, Euonymus, and Hydrangea also make big hedges.

For *shade* under average conditions nothing is better than Norway Maples. All the other shade trees in our list are valuable in some way, and they should be planted when they are suitable. Read the descriptions, and you can tell what each kind is good for and whether or not it appeals to you.

Windbreaks and *shelter-groups* may be made with any of the shade trees, preferably the thickest ones, but evergreens give the most protection. Norway, Blue and Douglas Spruces, the Pines, American Arborvitæ, Nordmann's and White Firs are excellent for this purpose. Mixed deciduous

and evergreen windbreaks are the best of all. *Screens* can be made with any of a dozen different things. Privet, Silver Maple and Cedars are unexcelled for quick screens. All thick trees and shrubs are good. Hemlock is the most beautiful, and the most permanent.

That large class which goes under the name of *Single Specimens* includes almost every tree and plant we have. The largest Maples and Pines and Walnuts, the smallest shrubs and roses and Privet specimens—all are beautiful when standing alone. Some should be trimmed for best appearance; others should be left to grow naturally. Suit the trees and plants to their spaces and locations, and to your preferences. Wherever there is room forests should be planted. It may be a half-acre only, or a thousand acres, but it will be beautiful, useful and profitable. Catalpa, Walnut, Pines and Spruces make the best forest trees.

For colors in leaves during fall, Maples and Magnolias probably are best. Evergreens, of course, provide contrast in summer and, what is much more valuable, color in winter. Peculiarities in coloring of both leaves and bark of other varieties are noted in the description, and there also you will see noted the blossoming habits of each kind of

How is this for an attractive and inviting planting? The forty yards of untrimmed Privet hedge grew in two seasons from 3-foot plants. The four Evergreens are splendid White Pines, about 3 feet high when planted. Cost of the lot, $8. Of course they take some years to grow, but they are beautiful from the start.

trees. Shrubs and roses, of course, are the chief source of flowers and fragrance. Birds nest in any thick trees, but for protection against cold, or from hawks, etc., they prefer evergreens.

To secure beauty of landscape all you need is properly to arrange tall and low trees, dark and light ones, shade and evergreen trees, and those that differ in form. If you like to work with your trees, plant those that need a good deal of trimming and cultivation; if you think they should get along without much attention, choose those that grow naturally as you want them to be.

HOW TO PLANT

First of all, get good trees. That means trees with thousands of fine, fibrous, roots close to their crowns; trees with straight trunks of the right height, and, if by nature they should have limbs when you get them, they should be developed evenly on all sides, so the future heads will be round and symmetrical; trees full of vitality and vigor, and free from disease, and not stunted.

Those fine roots are produced only by repeated transplantings or root-prunings. If trees are allowed to grow where the seeds come up, they will develop long roots that must be broken when the trees are dug for moving to your place. This leaves them with small feeding and anchoring facilities, and they suffer such a shock that it usually kills them; or, if they do live, they require several years to recover. But when they have plenty of fine roots they are able to take right hold in their new location. Such trees seldom die.

On the kind of care your trees receive in the nursery depends the grade of trees you will have when they grow up, and, to a certain extent, how fast they will grow. The tender trunks of the little trees must be kept growing straight and true, from the very seed. When wrong limbs start they must be rubbed off. If branches are allowed to grow in wrong places or directions, the trees fail to develop in places and directions where growth is needed. So you see that if trees are to develop into the symmetrical outline which we all admire so much, they must receive the most careful attention every week during their half dozen years or so in the nursery. If they are neglected, you cannot tell it by their looks when you buy them to plant, but it comes out three or four years later when your expectations of fine trees are disappointed by the development of lopsided or scraggy specimens.

This is where the skill, honesty, perseverance and reliability of the nurseryman count for so much. Care on his part means everything to you —and you have to take his word for it. Good trees are the kind we grow. We have a force of men who have been with us for twenty years. We have other employees who came over from Holland's greatest ornamental nursery. We get the best stock that we can find to start with, and we develop it with all the skill known to modern horticultural science. We guarantee that our trees are the very best that can be grown. Some nurseries produce as good trees as we do. Others do not. We are sure of our own, however, and if you buy from here you will be sure of what you get.

Have your trees shipped to you at the right time of the year. If you leave the time to us, we will send them so that they arrive at the proper time. If you live in the Eastern States south of Pennsylvania, fall planting is as good as spring planting for you. North of this, and in nearly all states west of Ohio, spring planting is best. Now by "spring planting" we mean that trees should go into the ground just as early after Christmas as you can work the ground. In fact, if there is a general thaw in January and if you can get them

What fine hedge Privet will make with proper trimming. Six years ago this was only two hundred feet of 4-foot plants—(400). Five Elms shown along the street with the Privet plants cost only $8.50. Inside this hedge are extensive grounds of an old-fashioned lawn, filled with various kinds of trees.

planted then, that is one of the very best times. In most cases, however, you will find that the thaw will come in February or March, and you must be prepared to set your trees then. Much planting, of course, has been done in April or even in May, with success. But your trees have to run risks with such late planting which they do not have to face when planted earlier.

When a box of trees arrives at your station, be careful that it is not exposed to severe cold for any length of time, or to hot sun and drying wind. If the trees do get frozen, your plan is either to bury the trees, box and all, or put the box, unopened, in a cool cellar. The idea, in either case, is to let the frozen packages thaw out gradually. If you are not ready to plant immediately upon the arrival of the trees, or as soon as they have thawed out, unpack them, mix some loamy soil into thin mud in a hole in the ground or in a tub, dip the roots in this till they have a good thick coat, then trench them in with the tops toward the south. To do this, dig a ditch about 2 feet deep, the north side perpendicular and the south side sloping, lay the trees in, roots to the north. Cover roots and most of the trunks with a foot or so of dirt. When the time comes to plant, go over the roots and cut off, on a slant, the face of which is down, all broken roots. Give the trees another coat of thin mud; or set the bunch of trees in this mud and take them out one by one right at the holes.

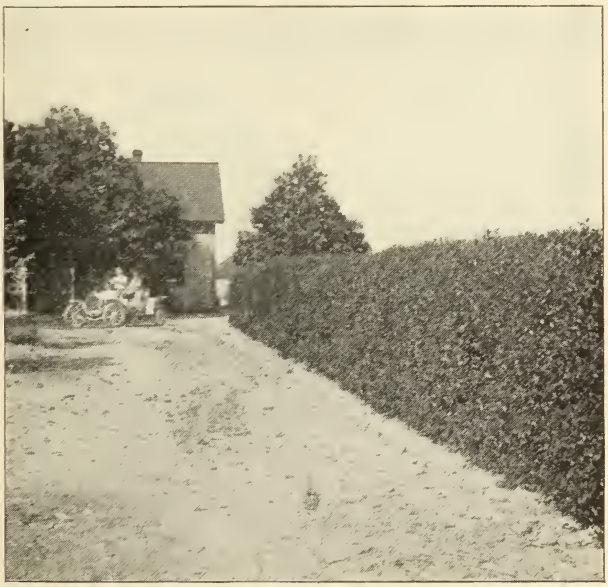
In preparing the ground for the trees, dig at least 2 feet deep and 3 feet wide. Thoroughly mix the soil you take out, and then you can put about a foot of it back. A recent development is to use a small amount of dynamite in preparing the holes. Run a bar down 30 or 40 inches deep, and explode a third, a half or a whole stick at the bottom of the hole. The charge should not throw out the dirt, but heave it. We recommend that you use dynamite whenever possible, as it prepares the soil much better than can be done in any other way, and makes the trees grow much faster.

Start the trees 10 inches deeper than you want them to set. Sprinkle fine dirt in among the roots, and, as you continue to do this, jolt the trees up and down so as to settle the dirt in among the fine roots. As the hole fills up keep packing the dirt. Use a heavy maul and come down on the dirt with all your weight. You cannot get it too tight about the roots. This packing is one of the secrets of getting trees to grow. The top inch or two of dirt, however, should be loose to conserve

moisture. Trees finally should set just about 1 inch deeper than they did in the nursery. You can tell how deep they were by the dark ring around the trunk. After planting, you may water the trees liberally. We strongly recommend that you mulch immediately underneath newly planted trees. Hay, cut straw, corncobs, buckwheat hulls, or even sawdust, is good material to use for this. A layer 6 inches thick is not too deep. Such a mulch will keep the ground damp all the time, and will prevent nearly all evaporation. Unless you use this mulch it will be necessary to hoe around the tree every week or so to keep a mulch of dust on the surface to conserve the moisture.

The after-treatment of both trees and hedges is determined easily when you are on the ground. If convenient, water them a couple of times a week. This will not be a necessity, though, if you have mulched. Trim the trees with an eye to the shape you want them to take, remembering that limbs never get any higher from the ground than where they are. Govern your clipping by planning your effects in advance. Good, healthy, standard outlines require very little cutting, while fancy forms call for about as much playing with the trees as you may be inclined to indulge in.

A laborer's home with a fine hedge. One hundred feet of 2-foot Privet plants, and Cherry shade trees, five of them, costing about $6.50 all told. The use of fruit trees for home planting is a good idea if you have no orchard; but, as a usual thing, you will be better satisfied if you plant a fruit-garden.



SHADE TREES

All that has been said in preceding parts of this book explains the great value of shade trees. The thoughtful homeowner will see at once that to plant shade trees is to begin a business venture which certainly will be profitable financially, and not less certainly will yield him a very large amount of comfort and satisfaction. Think of the increase in property value which shade trees bring; the cooling of your house, especially of sleeping-rooms during summer nights, bringing you comfort and rest; that, for one thing, will enable you to do more and better work; think of the shady porches and yards where all the family can be comfortable!

In selecting shade trees to plant, you should consider both immediate results and permanent benefits. That is, select trees, arrange and plant them so that they will give the best service now; then, after twenty years or so, they will be exactly what you have pictured them to be.

Norway Maple is the leader among shade trees, and nine times out of ten should make up a large part of the planting. It is well for the sake of variety, however, to plant some other kinds if you have the room. In our list there are many different kinds, trees with heads and trunks of various shapes, of slow growth and of fast growth, and trees that differ greatly in the tones of leaves.

All our shade trees have been transplanted or root-pruned often, so that when we send them to your place they will suffer very little from the shock of removing. Root-pruning and transplanting force the trees to develop large quantities of those little, fine, fibrous feeding roots instead of the long, rope-like leaders that have to be broken when trees are dug. We guarantee every tree we send out to be as fine, or finer, in quality as any you can buy or grow.

MAPLES

The very best shade trees for planting in this country are the Maples. This is due to two main facts—their adaptability and beauty, and the way they respond to scientific care on the part of the nurseryman during their first few years. This latter feature has quite as much to do with producing choice trees as anything else.

There is as much difference between an ordinary Maple and one that has been root-pruned, cultivated, transplanted, trimmed and shaped properly and scientifically, as there is between a Plum tree and a Chestnut. Nearly all Maples grow fast, are sturdy of trunk and limb, are dense and thick of leaves and have their branches well distributed, which gives them beautiful outlines. They are easy to transplant and certain to grow. All the different kinds are hardy. The one predominating feature for which Maples are desirable is the glory of their leaves. In spring some kinds are light, fresh green, and others blood-red. During the summer each variety has its own characteristic shade of green that may be recognized at once. In the fall, the Maples are the most noticeable and beautiful of all trees.

Norway Maples. There are six distinct kinds of Maples that we think are worth planting. Chief among these is the Norway, which should be planted three times out of four. You can identify it by several distinct characteristics in addition to its pronounced Maple-like type. All the trees, young and old, have sturdy trunks that are straight, and smooth bark; limbs that are strong, and a little crooked or bumped, but evenly distributed; a head that is nearly round, and

abundant foliage. The leaves are of the usual Maple type, but are thicker and heavier than the average. Norway blossoms and bears fruit or seed-pods, but both the blossoms and the fruit are comparatively small. After you have identified the tree as a Maple, you may note that the twigs are slim and that when you break them a milky sap comes out. This is a sure proof that the Maple is a Norway.

We are indebted to Europe for the Norway Maple. Its home is in the mountains all the way from Switzerland to Sweden. Owing to the conditions in its European home it is thrifty and exceedingly hardy. The leaves, which are green on both sides, come out earlier and stay on later than those of our native Maples. You can look for the little green leaves to appear on your Norway trees at least a week earlier than Ash or Linden show any green—about the same time as Plums leaf out or Peaches blossom. In the fall Norway Maple leaves stay green ten days or two weeks after other Maple leaves turn red and yellow, and then they stick to the trees a few weeks after the other leaves are down.

A Norway tree gets to be 50 or 60 feet high in twenty-five years or so. As has been noted, the head is always nearly round—just a little higher than broad. The leaves all come off in the fall. This makes the tree very clean—no litter of leaves all winter; they harbor no enemies, and will stand dust and smoke without damage. Some other shade trees get to be 100 feet high, with very broad heads. This is larger than the Norway Maple, and some people think that the Norway is not big enough for planting along wide streets. But it will give a good account of itself, anywhere you place it. In single rows along streets the trees should be planted about 35 feet apart. For this purpose be careful that you get trees to plant which have a single leader. Such trees can be trimmed higher than ordinary on the street side. Norway

A comparatively young farm planting near Harrisburg, Pa. About two hundred yards of hedge, containing eight hundred 18-inch plants. Various Maple, Horse-Chestnut, Linden trees, etc., about seven in all, in 6-foot size. The lot will cost about $12. This is a location where an Evergreen windbreak would be a good thing.

Maple is adapted to any kind of planting, in public or private places, singly in your yard or in large groves or windbreaks. It is a safe tree to plant—it has the ability to take care of itself. The dense, compact foliage makes such a barrier to the sun's rays as can be found in few other kinds of trees.

Silver Maple. The name comes from the color of the leaves. Underneath, these are the same shade as bright, new silver dollars; on top they are light green. Many of them are carried on their edges, and when the wind blows the trees are alive with silver-green flashes. Silver Maples produce enormous crops of leaves for the amount of wood-growth, and yet the growth of Silver Maples is the greatest thing about them. They grow faster and get big quicker than any other shade tree. Whenever you want cheap and rapid results you cannot select better trees. They stand dry weather and continue to look fresh. As screens, while they are not so thick as Norway Maples, they are satisfactory.

The trees get very large. In the fertile valley of the Ohio River and its tributaries they are often 100 feet high with a 3-foot trunk at the base. It is easy to train them, by pruning, so they arch over drives or buildings. They can be made to look almost like Elms. The bloom comes very early, usually in March. There are two kind of flowers: one pollen-bearing, which is greenish yellow, and the other seed-bearing, which is greenish with crimson spots and hairs.

Ash-leaved Maple, or **Box Elder.** Good old reliable shade trees which are especially suitable for planting in the country and small towns. They are clean and have no bad habits, nor do they harbor enemies. The branches grow very upright, making an oval head. Foliage is abundant and the shade dense. Ash-leaved Maples are an exception to the rule of single-leaved Maples because each stem has from three to seven leaflets. The curious fact is that the leaflets on one stem almost always differ in shape one from the others. The olive-green of the twigs is very rich looking during fall and winter. After the leaves fall in October long clusters of key-shaped, or winged, fruits remain thickly on the branches until whipped off by winter winds. The Box Elder is noted for rapid growth, dense foliage, good coloring of leaves, comparative freedom from disease, ability to stand dry weather and freezing, and to thrive under hard conditions. With age, it grows less rapidly, a feature in which Norway excels it.

Colchicum Maple, or **Red Maple.** In winter the bark of the twigs is red, and in spring the same color appears in the blossoms. During the summer the fruits are red, and in the fall the red leaves make a magnificent banner. So Red Maples are appropriately named. Naturally they are low-land trees, growing along river banks and in swamps, but thrive almost anywhere. Originally they came from Asia. The shape is very regular, and the trees never get very large nor do they grow very fast. They are chiefly valuable for their gorgeous leaves. Their small or medium size makes them suitable for planting singly in a limited space.

Schwedler's Maple. Strikingly colored shade trees which are valuable for their brilliant tones from spring to fall. The first leaves which come out in the spring are a very dark crimson, or even purple. In a few weeks they change to dark green. In the fall this again turns to brown and yellowish red. Schwedler's Maple differs slightly from others in form of growth, branches, etc., resembling the Silver in the appearance of its frame. The trees eventually get very large.

Sugar Maple. Before Norway Maples were introduced generally into this country, and before it was possible to get carefully grown Norway nursery trees, Sugar Maples were

at the head of the list of handsome and all-round good shade trees. They are larger trees than Norways, often getting to be over 100 feet high, with a 4-foot trunk. The head is higher than broad, and the leaves are just as thick on the branches and dense throughout the top as are those of the Norway. Sugar Maples seem to thrive best on rocky soil which is not too rich nor too moist.

MISCELLANEOUS SHADE TREES

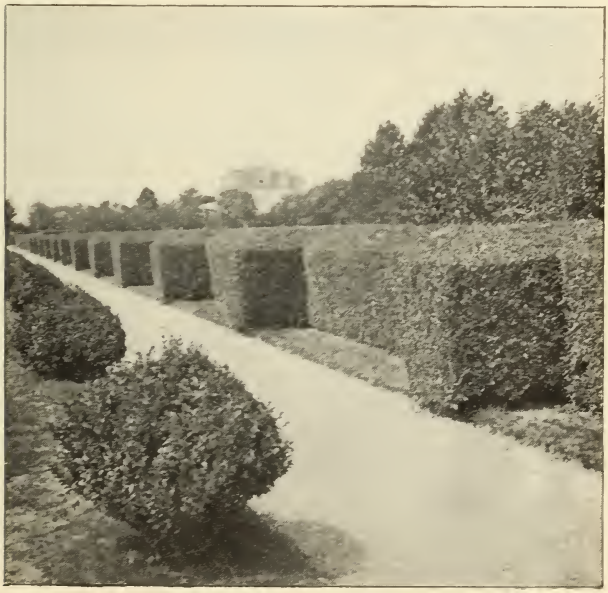
While we recommend Maples for general planting, there are other good kinds of trees that are valuable for variety. Elms, Lindens, Plane trees, Magnolias, Catalpas, Ashes, Beeches and Walnuts are handsome and dependable. These descriptions will enable you to select the kinds you need.

Black Ash. A good old standard shade tree that grows anywhere. The branches reach up rather than out, and form a compact, dense crown. The leaves are dark above and pale beneath. Good for a windbreak, when mixed with pines, spruces and hemlocks. Better in country than city.

Purple Beech. This tree is a beauty and should be planted where it stands right out alone. The great, round ball of its head, as it sets on the sturdy, gray trunk, is a striking thing. The most attractive feature of all is the purple leaves. They are beautiful. The old leaves hang on till the new ones push them off in the spring. Trunk and limbs have smooth, gray bark.

Cut-leaved Weeping Beech. A real Beech tree with smooth, gray bark, straight trunk and sturdy branches. It is lower than other varieties of Beech, however, and grows slowly. Branches droop after the manner of a weeping willow. Leaves are deeply cut, long and narrow.

Just to show what you can do with Privet. It will prune and grow into any imaginable shape and size. The single plants, also, are useful. This hedge is six years old. Ten good single plants, 7 feet high, cost only $1.75. Trimming a hedge like this requires only a half day three or four times a year.



European Birch. The well-known kind, with slim, spreading branches and white bark. Always beautiful, especially when the leaves turn yellow in the late summer.

Catalpa Bungei. This may be called an "artificial" tree because it is made by grafting a special variety, which grows a very thick, round head, high up on a straight stem. It is very hardy, and effective in a trim, neat way.

Catalpa speciosa (Indian Bean Tree). This is the hardy Catalpa which the United States Department of Agriculture recommends so highly for timber and shade. It grows very fast and makes posts or lumber as good as chestnut or ash. While the trunk is straight and thick, the tree is heavy branched, in a spreading manner, making a broad crown. This produces a good shade tree. The first frost brings down the leaves. In the spring the tree bears showy yellow, purple-spotted flowers, and these are followed by handsome pods about 18 inches long. Recommended for extensive planting on farms and village home grounds for timber and shade.

Spanish Chestnut. A fast-growing tree with a broad, round top of shining leaves that fade to attractive yellow early in the summer. Bears showy flowers in June.

American Elm. Probably no other tree of any kind is more picturesque than this one. It grows wild over the United States, but the cultivated ones are a great deal finer than the wild ones. The trunk usually divides near the ground into two or three main branches that arch gracefully in a high curve and form a tall, vase-shaped tree. Plant the Elm where it has a chance to show against the sky. Let it stand alone. You will look at it often with a lot of satisfaction. The Elm is the shade tree of northern cities, particularly of the larger towns. No other tree seems to be planted so universally in cities, and it will have to be a good one that is any better for this purpose.

European Horse-Chestnut. This is the common Horse-Chestnut. It is not related to the real chestnut, and is an entirely different tree. It is a very pretty tree for a week or so when in bloom.

White Horse-Chestnut, Double White Horse-Chestnut, and **Red Horse-Chestnut.** Three other forms of the European which are exactly like it except in their blossoms. The name of each describes the flowers.

Judas Tree, or **Red Bud.** This is *Cercis Canadensis*, a small tree that is beautiful, hardy and showy. The leaves are heart-shaped, and fade early to clear yellow. The rose-pink flowers come in spring and almost conceal the branches.

Honey Locust. Rather handsome tree. Sometimes planted singly, but more often in a hedge. Has vicious thorns and an enormous root-system.

Linden, or **Basswood.** Another reliable shade tree that is green and has no bad habits at all. It grows fast. The blossoms are very full of honey. Makes a fair street tree, but is more adapted to planting in the country where long lines of shade trees are wanted along roads, etc.

Maidenhair Tree, or **Ginkgo Tree.** An odd tree, not very handsome while young, but exceedingly graceful and beautiful after a few years. It is very long lived. If you plant it now your grandchildren will likely not more than see it in its prime. The trunk is tall and straight, and the branches grow out horizontally. You can recognize it by the veins in the leaves. These all run in the same direction, lengthwise of the leaves, instead of having a network as most other trees do.

White Oak. The common White Oak is a rather slow grower, but has sufficient merit otherwise to make up for

this. Its shape, form of trunk and branches, leaves and bark, all are beautiful, and the tree lives to a very great age. All things considered, it is one of the finest Oaks.

Pecans. Here is a class of beautiful shade trees which, at the same time, give nuts more valuable than chestnuts or walnuts. Their limit of practical hardiness for bearing is considered to be about the Mason and Dixon line, but the trees will live even in New York or Michigan. It is in the South, however, that Pecans should be planted most extensively. Two or three Pecan trees will yield five hundred pounds of nuts each year when they are twenty years old, and be almost as fine shade trees as Maples.

Carolina Poplar. Much-planted park and street tree.

Tulip Tree. Large tree with a round top. Both leaves and branches grow very dense and close. Blooms in early spring; the flowers are not showy, but their size and unique form and coloring make them conspicuous.

Smoke Tree (Purple Fringe). Half tree and half shrub. Bears pale purple flowers and after them yellow leaves come out. The blossoms are in long, loose clusters and they soon fade and become so feathery edged as to conceal their true outline, giving the tree the appearance of a ball of smoke.

Black Walnut. The common Walnut tree which everybody knows. Does not yield much shade, but few trees are handsomer in shape. When planted in a place where it stands out alone the tree is very dignified and noble looking. In groves for beauty and nuts it is very desirable. For timber-planting few trees are better, because Walnut grows so fast and Walnut lumber is so high-priced.

Oriental Plane. An excellent reliable old shade tree, best suited to planting where there is plenty of space, as on farms and at small town homes.

Some people like Evergreens better than shade trees. Here are two Arborvitæs, three Spruces, and about one hundred feet of American Arborvitæ hedge. The five Evergreen trees, good-sized planting stock, the hedge material, and the six Silver Maples outside the fence, in 10-foot size, would cost about $15.

EVERGREENS

We will note briefly the chief uses of evergreens, and tell why it pays to plant them. One or several of the following kinds are adapted to making *windbreaks*, *hedges*, *shelter-groups*, *ground-covers*, *borders* and *beds*, and are also fine for *specimen planting*.

Windbreaks are a modern necessity since we have come to understand how they protect our houses and our barns from cold, from strong winds, from snow-drifts, from fire and from hot sun—how they save paint, protect stock in pastures from cold, heat, hail, wind and rain, prevent spring frosts and winter freezing in gardens, orchards and fields, save fruit from blowing off, and lessen evaporation of moisture from land within a couple of hundred yards in their lee. Spruces and Pines are the best trees for windbreaks, unless you are after appearance more than service, when Arborvitæs and Firs can be used. Mix the different kinds.

Evergreen hedges make stronger fences than locust posts and woven wire, and very much more durable ones. These hedges are very striking and beautiful. No other kind of planting will add more to the looks of a place. Hemlock is the best of all evergreens for hedges—makes the best-looking ones, the strongest and most permanent. American Arborvitæ and Norway Spruce come next—the former for low hedges and the latter for higher, broader ones.

Shelter-groups come in the same class as windbreaks, both as regards use and beauty, and kinds of evergreens to select. Close to your home or barn they will protect and shade it. In pastures they will mean many dollars to you because of protection they give stock in all kinds of weather. Many farmers are enlarging their shelter-groups and making timber-blocks of them, at the same time producing a valuable product and using waste land. The timber will grow at the rate of $10 an acre per year. There is no mistake about this. For this purpose the three Pines and Norway and Douglas Spruces are the best trees. Mix in some oak and ash seedlings.

When it comes to planting about a home, some wonderfully fine effects can be made with the two or three dozen different evergreens. There are kinds that reach 75 feet high, with pointed tops, like Douglas Spruce, or the Firs, Hemlock, etc.; others are just as high, but have round or irregular heads, like the Pines, some of the Spruces and the Cedars. Most of these tall trees are very dark green. Large spaces are required for these trees, and in smaller yards and lawns medium-sized evergreens are needed. White Fir, White Spruce, Blue Spruce, and some of the Arborvitæs are adapted to such planting. Hemlock, again, will do well here, and is not less beautiful than when given plenty of room.

In smaller yards and lawns as well as in larger ones, there are opportunities for lining paths and making borders and beds of evergreens. No other kind of planting is more attractive to you, who live in the home, than a lot of little evergreens in a row, or a clump. A conifer bed 10 by 30 feet is a wonderfully attractive thing. In it you can plant a half-dozen of each different kind of evergreen—the Golden Arborvitæs, Retinosporas, Junipers, the bluish tinged Spruces, Firs and Cedars, the dark and light green Spruces and Pines and Firs, all contrasting splendidly with each other and with their surroundings. For the best effect less of the brilliant yellow foliage is required than of the dark green, so it is a good plan to put a border of the common kinds around the bed, then set the unusual colored trees in the center. All the year round such a bed will attract attention.

Borders of little evergreens are fine along walks or drives. Select those trees that never get large, such as some of the Junipers, Arborvitæs, etc. If you have an ugly bank, a pile of rocks or a swamp, cover it with dwarf or trailing Junipers or Arborvitæs. The golden foliaged Arborvitæs, Juniper and Retinosporas, all are small trees, finest during their first ten or twenty years. The proper kind to select for specimen or individual planting must be left to your judgment.

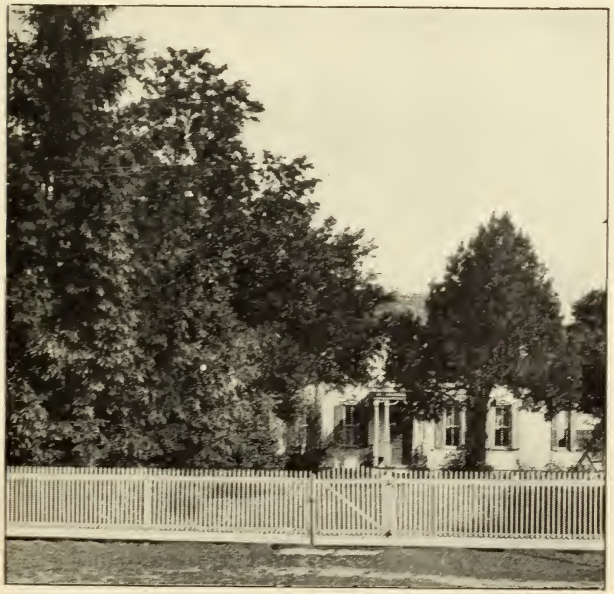
SPRUCES

Probably the most useful of evergreens. There are a dozen valuable varieties, all of differently colored or shaped foliage, size of tree, or growth of branches. They are suited for windbreaks, forest planting, home shelter-groups, evergreen conifer beds, or specimen planting. Blue Spruce is the most strikingly colored evergreen we know of, and otherwise is good in every way. Norway is the windbreak tree. White Spruce has the extreme hardiness needed for exposed situations and sections. Plant some Spruces about your home.

Douglas Spruce. Very large and stately tree with the Fir habit of branches drooping. The slender branches of Douglas Spruce come down on a slight curve from a tapering trunk. This gives the trees a steeple-like effect. The foliage droops from the sides of the twigs, and on the end of nearly every one of these hangs a 3-inch cone. This is a predominating timber tree on some slopes of the Rocky Mountains. It makes stately specimens, and needs plenty of room.

Koster's Blue Spruce. One of the most striking of all evergreens. The foliage is intense silvery blue, and very dense all the way through the tree, especially on the branch-ends where the twigs are as full of needles as a chestnut bur is of spines. A rapid grower, has regular, slim branches and

Douglas and other Firs, and Plane tree. This imposing planting would cost about $6 to start, shade trees 10 feet high, and Evergreens 5 feet high. A $15 evergreen, or $5 Privet hedge, would be much nicer than the fence across the front. The thick trees protect the house.



a tapering trunk. Develops cone-shaped, the most even and regular of all evergreens. A solid, substantial, sturdy, reliable evergreen which should be planted at every home in the country. This variety is grafted. That is, we cut scions from the bluest and handsomest specimens we can find, and graft them on sturdy seedling roots. This insures that every specimen will be of the true blue color. Seedling Blue Spruces often revert to the green type after a few years, or in other cases are green when young and become blue when older.

Colorado Blue Spruce. The same thing as Koster's Blue Spruce except not grafted. Our Colorado Blue Spruce trees have been watched carefully. They are propagated from seed harvested from true blue trees and all seedlings showing any tendency to revert to green are not offered as blues.

Norway Spruce. One of the most largely planted evergreens all over the country. Is extremely rapid-growing, graceful and handsome, gets very tall, is at home any place you plant it. Norway is suitable for specimen planting, but it is not so good set singly as Blue Spruce, or Firs, Pines, etc. The place for Norway Spruce is in windbreaks, shelter-groups and forest-plantings.

White Spruce. Greatly resembles Blue Spruce in everything except color of foliage. The needles are light green, and have an agreeable odor. A fast grower. Does not get quite so large as Norway. Extremely hardy and one of the best evergreens for windbreaks, shelter-groups and planting of any kind in exposed positions in the North. The cones are slim, less than 2 inches long and glossy brown. If you want to make a permanent screen or windbreak about your home, plant this Spruce.

HEMLOCKS

When planted alone, where there is plenty of light, air, and root-space, Hemlock trees grow to enormous size, with a tapering trunk several feet in diameter at the base. The branches are slender and short, and the twigs usually droop a little toward the end. The foliage is fine and lacy, two rows of the half-inch needles growing out at either side of twigs and small branches. Cones, of which there are large numbers, are only half an inch long and look like nuts.

Hemlocks make wonderfully fine hedges; in fact, no other hedges can compare with them in beauty. In about ten years they get to be 8 feet high and 6 feet broad, when properly clipped, and then they are good for one hundred years. Hemlocks thrive in various soils, wet and dry, high and low. They grow out in the full sun, or in heavy shade. The trees do well when planted among pines and spruces, or deciduous trees, in groups or windbreaks; to tell all the uses of Hemlocks would be to go over the list of the uses of evergreens. Get perfect trees to start with and you will not be disappointed with the beauty of your Hemlocks.

Canadian Hemlock. Sometimes called Hemlock Spruce, and known botanically as *Tsuga Canadensis.* The fine, flat foliage is shining dark green, and small branches droop from the heavy trunk. The cones are a half-inch long. Grows very large when given plenty of space, but thrives just as well when planted thickly in a hedge, either when trimmed or left to grow naturally.

PINES

The old reliable evergreens, some of which should be included in every ornamental planting. No trees grow faster

than Pines; no evergreens are more beautiful or more satisfactory. All the varieties we have get very large. In a big yard, one or two of the trees standing alone make a wonderful effect, but the greatest usefulness of Pines is when they are planted in windbreaks or groups. White Pine is the best of all, though Scotch and Austrian Pine are exceedingly desirable in exposed positions where the soil is poor.

White Pine. The common forest tree of the eastern United States. Nursery-grown and transplanted trees are very much finer than wild seedlings; they develop evenly and grow much faster.

Austrian Pine. Fast-growing, dense, adapted to any soil and location. Quickly becomes tall, with a broad, round top. Cones yellowish, 3 inches long. Adapted to windbreak and shelter-group planting, particularly in the Central West.

Scotch Pine. Large, fast-growing, hardy and healthy. The foliage has a bluish tone and grows very thick. Cones reddish, about 2 inches long. Trunk and branches tapering and slim. Excellent windbreak tree.

ARBORVITÆ

Useful evergreen tree, quite different in appearance from any of the Pines and Spruces. The foliage, or "leaves," is flattish instead of needle-like, and has a tendency to set on edge; especially with certain varieties. None of the kinds get very large, and all, excepting Western, are slow growers. This makes them valuable where space is limited and you want the trees to stay small. Their chief use is in hedges and as single specimens. The odd shapes and colors of some of the varieties make them especially well adapted for planting where they stand alone. They make wonderful hedges.

What we mean by windbreak planting. Ordinarily it is best to plant a double row rather than the single row as shown in the upper picture. Such a break two hundred yards long will call for about $25 worth of Spruces, and about $30 worth of Pines. In the lower picture you see a break about twelve years old.

American Arborvitæ is used to some extent in windbreaks, but we do not recommend it for this purpose in comparison with White or Scotch Pine, or with Norway Spruce.

American Arborvitæ. One of the very best evergreens for hedges. It grows rapidly during the first three or four years, but after that develops slowly, and in twenty or thirty years will reach no more than 30 feet in height. It is a handsome little tree, and grows without any trimming in a slim, even cone. But it can be pruned to any form, and responds readily to training. Desirable in tubs for inside or for porches. An Arborvitæ hedge gets 3 feet wide and 4 feet high in about five years, and will remain thick and beautiful for half a century. In summer the hedge is bright green above and yellowish beneath; in winter the foliage changes to bronze.

Globular Arborvitæ. A very little tree with a short stem and a globe-like head. Branches and foliage are compact and dense. Bright green, graceful, normal, even, and quite different from any other trees.

Peabody's Golden Arborvitæ. Has nearly all the characteristics of American Arborvitæ, except that the foliage, during its first year, is a bright golden yellow; it is a slow grower, never getting large. Fine when planted singly in your yard, or for very short hedges. Sometimes used at path- or drive-openings, through privet or other hedges, and makes a beautiful contrast in color.

Oriental Arborvitæ (*Biota orientalis*). Low, thick, bushy evergreens that are hardy and will grow anywhere. The foliage is bright green in summer, bronze or yellow in winter. A little broader than American, and taller than the Japanese. Use it to plant singly in medium-sized places, especially on banks or positions elevated above the surrounding space.

Pyramidal Arborvitæ. Narrow-based, pointed, very upright, dense and compact evergreens of small size and slow growth. Plant these trees under the branch-tips of wide-spreading trees like White Pine, Maples, etc., and you will get the effect of columns supporting the bulk above. Useful when set singly in yards and lawns.

Western Arborvitæ. Really a rapid grower and gets large much quicker than any other Arborvitæ. Grows tall and narrow, with short, drooping branches. Foliage is glossy green above, has silvery spots beneath and has considerable fragrance. Very regular in form.

FIRS

Tall, pyramidal evergreens, with a pointed top, and limbs that slant down from where they leave the trunk. The cones always stand up. The varieties vary in detail, but nearly all of them are dark green, lustrous and rich, and very beautiful. They are particularly adapted to ornamental planting where they can stand alone, but in some cases Firs are the best trees for groups and windbreaks. Concolor is a light bluish green variety. All kinds are hardy and are medium to fast growers. Most of the varieties grow to large size.

Cephalonian Fir. Broad, spreading, limbs stiff, twigs rigid, foliage tapers to a sharp point. Colored dark above, silvery beneath. Grayish brown cones 6 inches long.

Nordmann's Fir. Very broad trees of beautiful shape, with foliage that is of darkest green above and silvery beneath. Cones are dark brown. Very hardy and long-lived; thrives best when planted among other evergreens.

White, or Concolor Fir. One of the most valuable of all evergreens. It is a native of the Rocky Mountains, and in hardiness and vigor is equal to Oaks, Pines or Spruces. The trees are broad, dense, solid-looking, elegant and exceedingly

long-lived. Branches are retained right down to the ground no matter how old the trees are. The foliage is light bluish green, almost as blue as Colorado Blue Spruce, but not quite so intense. In growth, health, shape and foliage, it ranks with the very finest evergreens and cannot be too highly recommended. Use it for planting alone or for making up groups or windbreaks of any size or shape.

CEDAR, CYPRESS, RETINOSPORA, ETC.

Cedars are the trees with spicy, fragrant leaves and bark. All the year round you can smell them whenever you get near where they are, and if you break off a twig the aroma will stick to your hands a long time. Cedars make good screens, and fair windbreaks. They have the bad habit, however, of harboring "cedar rust," which is a serious enemy of fruit trees, and on this account they should not be planted near orchards.

Cypresses are slender, upright trees of varying height. They are very picturesque. In Europe and Asia some varieties get very large and live to a great age, but the only varieties suitable for our climate are those of medium size.

Retinosporas are small evergreens of which we have four varieties. They grow rapidly and very thick, giving a well-established effect in a season or two. The foliage is finer even than Hemlock. While hardy, they should not be planted in exposed places nor where you expect an evergreen to remain for a generation. Beds and groups of them, alone or with small arborvitæs, pines, spruces, and junipers, are splendid. You will like the way the branchlets arch up and out and down, with the foliage drooping gracefully, for all the world like ostrich-plumes. As specimens on the lawn, or in massed plantings, they are beautiful trees.

In exposed situations farm homes should be protected by groups of Evergreens. The eight or ten in the upper picture, planted with 18-inch Pines and Spruces, would cost less than $5, while the twenty-five or thirty in the lower picture, same size, could be bought for $10 to $12. We strongly recommend these kinds of plantings.

Blue Virginia Cedar (*Juniperus Virginiana glauca*). This has a fragrant odor, much beauty, great hardiness, and a habit of fast growth. The foliage is dark green, and the branches are very compact. Splendid standing alone.

Red Cedar. The ordinary, well-known kind. Good for quick screens, windbreaks, etc., but gets thin in a few years.

Indian Cedar (*Cedrus Deodara*). Has bluish green foliage growing in bunches. Cones, 5 or 6 inches long, grow here and there on the branches. The trees form broad-based pyramids. Particularly adapted to southern conditions.

Golden Plume-like Cypress. The young growth of each season has the old-gold color which contrasts so richly with the dark green of the older foliage. Small trees, pointed and even in shape, useful for planting.

Japanese Cypress. Known as *Retinospora obtusa*, and famous as miniature trees. Naturally a perfect cone-shaped, strong, miniature tree. Remains between 4 and 12 feet high for many years. Can be trimmed into all shapes. Useful for making up picturesque little landscapes in limited space. Use a dozen or more of trees in a group, or plant two or three on a bank, or about a walk. Fine also for growing in tubs or in greenhouses.

Cypress, Glory of Boskoop. Tall and slender; feathery, fern-like, blue-green foliage; curving branches that droop a little and never get very long. Entirely hardy south of the 45th degree.

Retinospora pisifera. One of the trees which the Japanese use for clipping and twisting into odd shapes. It has bright green foliage and drooping branches. *R. pisifera aurea* is the same tree, but with new growth a rich golden yellow. *R. plumosa* is the Japanese Plume Cypress, a thick little tree with an egg-shaped outline; white *R. plumosa aurea* is this same Plume Cypress with the new growth bright golden yellow. This latter variety is one of the best of the golden evergreens.

Japanese Umbrella Pine. The botanical name of this tree is *Sciadopitys verticillata*. It makes a narrow pyramid, with the branches arranged around the stem like the roofs on a Chinese pagoda; the foliage is similar to that of the firs, with the deep green color of the boxwood. Hardy, and very effective for specimen planting.

English Yew. Hardy in the United States except the northern tier of states. It is evergreen, but turns brownish in winter, especially in the North. The trees do best in partial shade, as among other evergreens. They produce scarlet fruits that look like cherries, which hang on the branches a long time.

Irish Yew. Makes a narrow pyramid a foot wide and 3 feet high.

JUNIPERS

This is a family of evergreens which is very useful for certain purposes. The varieties are nearly all small. They grow fast for a few years, quickly reach 3 to 10 or more feet high, then do not get any larger. All varieties, except Irish Junipers are very hardy and are to be recommended for any of the northern states. Some kinds grow almost straight up and make a column a foot thick and 6 or 7 feet high. Other kinds make pyramids or globes or have regular heads; and still others are prostrate or trailing, covering the ground with a mat or thick blanket.

Irish Juniper. One of the most column-like evergreens. The branches grow almost straight up, and a 7-foot tree will be no more than 1½ feet thick. Neat, clean, green and formal; sometimes winter-kills in northern states unless protected.

Common Juniper. A dwarf tree with a very short trunk and branches that grow straight out and then turn up. Specimens get to be 5 or 6 feet broad and only 2 or 3 feet high.

Douglas Golden Juniper. Like a small, ordinary Red or Blue Cedar, except with the current year's growth of bright yellow.

EVERGREEN HEDGE PLANTS

In certain places where a wide and high hedge can be used, the most beautiful of all are made with Hemlock, American Arborvitæ or Norway Spruce. See the descriptions of these trees on pages 44 and 46. The Laurels and Rhododendrons also make hedges that are splendidly fitted for certain situations.

RHODODENDRON, LAUREL, ETC.

The Broad-Leaved Evergreens

Rightly considered, Rhododendrons are shrubs, but as they are selected more often for their evergreen quality than for their size, we consider them as evergreens. They are very useful and are simply wonderful in their flowers as well as in their thick cover of leaves. The ordinary Mountain Laurel of the Alleghanies is a member of the Rhododendron family. There are a dozen or more different kinds. The common deciduous Azalea is a Rhododendron, a fact which often is overlooked because the Azalea sheds its leaves.

Rhododendrons naturally are at home under trees in half-shaded places or where the sun never reaches them at all. They bloom best where they get a little sun, but they thrive even in the deepest shade. Out in the full sun they grow

This clump of Evergreens and Maples, in a vacant corner where a pasture yard joins the barnyard, protects the barn and screens the house. One hundred Pines, Spruces, Arborvitæs and Firs, and a dozen Maples in this particular planting cost, in sizes best suited, about $32. Those seen would cost no more than $5.

all right but never get so large. You can put them in wet places, along gulleys, around rock-piles, or over banks, with excellent effect. They thrive in any soil except limestone, or where lime has been applied. The only thing they need is a layer of leaf-mulch on the ground when they are planted. Straw will do, or any other vegetable matter. If it blows away, weight it down with some dirt or stones. You should set a plant about every 2 feet, and have two or three rows of them.

Catawba. Bears large white flowers in clusters rather late in spring. Every branchlet carries dozens. Leaves are extra long and narrow, in clusters at the ends of branches.

Purple. Like Catawba in every way except in color of flowers.

Ponticum. Bears purple flowers and grows 10 feet high, but is not so hardy as the other kinds. This variety requires light protection from the severest freezing, but the others will live in any situation.

Mountain Laurel. One of the most ornamental shrubs that can be planted. It will grow almost anywhere, in either dry or wet soil, just so it has a thick mulch of leaves or straw. It is naturally a swampy plant, and is an evergreen, of course. The flowers are masses of pink and rose-color. Sometimes called Calico Bush.

Mountain Fetter Bush. A thick little evergreen shrub with dark green leaves that have black dots, and showy flowers that come the very first thing in the spring.

HEDGE PLANTS

The benefits of hedges have been explained sufficiently to show that they, like shade trees, will well pay the planter in actual cash and in satisfaction. Hedges mean prosperity. When you plant hedges, you do more than improve the looks of your place—you start something that has a great and good influence.

The kind of hedge you should plant depends on where you live, the size you want it to be, how quickly you want it to grow, etc. Privet usually is best. Barberry is good when you want a hedge that you can step over, while evergreens make hedges 6 to 10 feet high and 8 to 12 feet thick.

CALIFORNIA PRIVET

This is the universal hedge in the East, and that fact proves that it has greater merit under ordinary conditions for this purpose than any other plant. For live fences at village, town and country homes it is the very best of all materials. On public grounds of all kinds, such as at schools, in parks and cemeteries, along roads and paths, on factory grounds, and on newly subdivided areas near towns, nothing else can be used in its place, and in this place it is indispensable.

In one year the plants will get to be 3 feet high; in two years, if not trimmed, 6 to 8 feet; and the third season they make a 12-foot screen that you can not see through. The making of either this tall screen in such a short time or of a thick, low hedge depends entirely upon the trimming.

Privet thrives in any soil, and particularly well near the Atlantic shore; but we know of perfect hedges in the Rocky Mountains, 6,000 feet above the sea. The plants are beautiful because of their fragrant white flowers and their berries, as well as for their form.

The leaves are dark and glossy, about 2 inches long, and

hang on until late in the fall, sometimes nearly all winter. At Philadelphia, for instance, they turn bronze in October and hang right to the twigs until in February or March. South of Washington they remain almost green all winter. Privet blossoms grow in clusters, are white and very fragrant.

California Privet is known as *Ligustrum ovalifolium* by botanists. It comes from Japan and China, and is able to stand temperatures of zero without any damage. Ten or fifteen degrees below zero do not damage it much, but twenty or thirty below will kill the wood to the ground. This is not so serious as it might be, because the roots throw up a 3-foot growth by the next August.

Privet produces wood faster than any other shrub or tree. When you want a hedge that is thick right down to the ground, you must set the plants close together. Cut back to within 3 inches of the ground the first season, then each April cut back again to within 6 inches of the previous year's height. This harsh treatment will force a thick, leafy growth of twigs and branches right from the ground up. By setting the plants 6 inches deeper than they ever were before (this will not hurt them) each one will have half a dozen or more stems coming out of the ground, and this will help greatly in keeping the hedge thick at the bottom.

Plant Privet from 6 to 18 inches apart. It usually is best to set in a double row, the plants "staggered," a foot apart in each line. Some people use even a triple row. The lines should be about 8 inches apart. This is the way to make the finest hedges, especially when you want them a couple of feet wide and over 3 feet high. A single row of plants will make a beautiful hedge, but it will not be so thick at the bottom, and will require careful trimming to make it as nice.

You can plant with little or much work—and the immediate results will be about in proportion. When possible plow or

Our idea of a shelter-clump of Evergreens. There are about twenty trees in this group, but it is well to use up to a hundred if you have space. Spruces, Pines, Firs, Hemlocks, etc., in suitable sizes for such planting, will cost you from $2 to $5 for ten trees. Group them near your house.

dig a trench 2 feet wide and 1 foot deep. Don't throw the dirt out—just mix it thoroughly. A horse and harrow or cultivator are the best tools. When you have a fine bed of soil, plow a trench in the middle, and set the plants in dry soil. The roots should be "mudded" as soon as you unpack them, and if you do not plant at once, they should be coated with mud again just before you plant. Water, if you can, after planting. A good heavy rain will do this for you. Where it is not practicable to use a horse, or dig much before planting, use light charges of dynamite placed 18 inches deep, to loosen the soil; and then, when planting, merely take out a shovelful of ground where you want each plant to go. Always mulch 6 inches deep with cut-grass, corncobs, or buckwheat hulls right after planting and watering. You can water twice a week and fertilize half a dozen times a season with good results. But if you do not care to do this, give your hedge a little trimming, and let it take care of itself.

BARBERRY, THUNBERG'S

This is a most useful plant, and should be used more often than it is for hedges, clumps, borders and low thicket-screens. Naturally, the plants grow very even and fairly fast. We usually see Barberry about 2 feet high, but it will get to be 5 feet high and 6 feet broad in six or eight years when untrimmed. It is very thorny and pretty strong, and will make a real fence, even for a pasture.

It is the thickest, densest shrub that grows. The slender branches are always curved and shoot out and down, in every direction. In September, October and November the leaves turn red, and all winter the bushes hang full of the brightest of red berries. Because of this winter brilliance, many people prefer Barberry to privet for hedges. It should be not allowed to replace privet, but ought to be planted where it is the most suitable on account of its thickness, its graceful form, and red berries and leaves.

Barberry is absolutely hardy. You need not fear that it will winter-kill at all. It will stand trimming, but does not need it even for wonderfully fine hedges, unless your space is very small. On account of the dense and horizontal-growing branches, the plants make a thick hedge when as far as 3 feet apart. Half this distance, however, is better.

BOXWOOD

This is naturally a large, strong shrub, of very dense growth. Old Boxwood bushes look like piles of leaves. When you part the branches you find the inside just as thick as the outside, and even a brighter green. You can clip the bushes into almost any shape imaginable. The little plants can be made into hedges not more than 6 inches high; or, of course, any larger size.

SHRUBS

Too often country people and those in small towns think of shrubs as useless ornaments, and do not plant them about their homes. But this class of home planting is beautiful in its dense leafiness, still more beautiful in its countless flowers, and the varying sizes of the plants make them suitable for planting in every yard or lawn. We list only a few of the most valuable varieties of shrubs, and suggest that you make use of them for the following purposes:

If you have a bank too steep to walk on, which you do not want to cover with evergreens, plant it thickly in shrubs instead of trying to keep it covered with grass. The shrubs will make just as green a cover, will hold the soil as well, and, if you select the right varieties, will remain fresh and green through the dry, late summer months when grass turns brown. This substituting of shrubs for grass is a very good idea to use whenever you have trouble preserving the sward. Oftentimes people will not walk in paths. They cut across corners and wear out the grass. If you had a line of shrubs along the path, they would not walk on them. The shrubs will thrive under harsher conditions than will the grass.

Tall shrubs make good screens, and low ones are fine for planting under shade trees and evergreens, or, as we suggested, for planting Rhododendrons, around the foundation-wall of your house. When you plant single shrubs, do not get them in the middle of the lawn or the yard. Some shrubs make ordinary bushes, but bear splendid flowers; other kinds make beautiful bushes and bear insignificant flowers. The following descriptions give the valuable characteristic of each kind:

Japanese Azalea (*Azalea mollis*). A leaf-shedding Laurel or Rhododendron, literally covered with flowers in the spring, which come earlier than those of the Rhododendron. Blossoms of every color, of large size, and in immense numbers.

Bay Tree. A beautiful little tree that usually is trained in some artificial form and grown in tubs for decoration. Naturally it has a straight trunk and a round head. Will stand considerable freezing, but northern winters will kill it if left outside.

Calycanthus. This is Carolina Allspice, or Sweet Shrub. It has deliciously fragrant flowers and handsome leaves. The blossoms are chocolate-colored, and come about May. Bushes 4 to 6 feet high.

Deutzia crenata flore pleno. A hardy shrub about 8 feet high. Has double, white flowers that have a ring of rosy purple around the edges.

Deutzia crenata, Pride of Rochester. Known as the Large-flowered Deutzia. Flowers very large, double, white.

When you want the most beautiful effects, plant the trim and neat Blue Spruces, Nordmann's Fir, White Fir and Hemlocks. The planting shown here secludes the house, protects it from cold and snow, and is very handsome. The dozen or so trees, in good sizes, cost about $18.

Euonymus. A shrub that gets from 5 to 8 feet high. Characterized by the most brilliant red and purple leaves in the fall, and by fiery crimson fruit. They are fine when massed, especially with other shrubs that bloom earlier and later. The common names are Burning Bush and Strawberry Bush.

Hydrangea paniculata grandiflora. This well-known shrub gives a splendid effect in a border or as a single specimen. The flowers come late in summer, are borne in great clusters or panicles, and when first opened are pure white, but change, as they grow old, to pink, then to bronzy shades.

Blue Hydrangea. A smaller form very suitable for masses. The color of the flowers varies from very light to darker blue, the soil and location having certain effects on the color. The foliage is intense, shining green, and the whole shrub is very showy. In the South they stand the winters, but in the North they require protection.

Cherry Laurel. A small tree with straight stem, twisted, bushy branches and large, handsome, shining foliage. It has a straight trunk and a round head like a miniature Norway Maple. In April or May it bears hosts of white flowers that look like cherry blossoms. Does well in tubs. Here at Berlin we have them planted along our driveway to the house, and while they are not supposed to stand zero weather none have winter-killed. Sometimes called the mock orange of the South.

Magnolia, Soulange's. A hybrid tree-shrub, handsome in leaves and flowers. Flowers come and go before the leaves expand. Blossoms are white, with rosy tints, fragrant, large, and cup-shaped.

Hall's Japan Magnolia (Starry Magnolia). A tree-shrub with spreading branches like the cucumber tree. It has the magnolia habit of blooming in early spring before the leaves come out. Fragrant flowers 3 inches across.

Rose of Sharon (Althæa). This is in a class with Hydrangeas and Rhododendrons for showiness of blooms. It is a large shrub that naturally grows narrow at the base and broad at the top. The flowers are borne on wood of the current year's growth, and, therefore, the shrub can be pruned as much as you please during the winter without preventing bloom. As the bush is tall, it is fine for setting back of lower shrubs or of flower-beds. They bloom in great profusion. Our plants will bear flowers of all colors, from white to dark maroon.

Japanese Snowball. A shrub of medium size, with showy flowers and beautiful leaves.

Spiræa Van Houttei. This is Bridal Wreath, a very grand, very graceful shrub with dark green leaves and white flowers. Grows 5 to 6 feet high, and the branches arch nicely.

Weigela, Eva Rathke. A showy shrub that blooms in May; sometimes grows 8 feet high. The flowers are trumpet-shaped, deep carmine-red.

Weigela rosea. A taller variety than Eva Rathke, with many branches. The flowers are rose-colored and come in great numbers.

Weigela amabilis. Similar to Rosea, except that the flowers are a little darker.

VINES

Vines are needed at every home of any size to finish up the planting and the house. No porch can be entirely comfortable without them, because they both shade and screen. A half-dozen vines cost such a little bit that everyone should buy that many and have them adding their beauty to the rest of the planting and to the buildings.

Clematis. Well adapted for training on porches, balconies and trellises, or for covering walls, fences or trees. Bears flowers in late spring and afterward berries.

Wistaria. One of the best and hardiest of ornamental vines. Suitable for all kinds of climbing, and wonderful when in bloom. The flowers are all colors, from white to purple, and come in long clusters.

ROSES

The practical person too often neglects to make his home as beautiful as possible. Some members of a family may care a great deal for flowers, and to them their Roses are just as important as pets or machines or other hobbies are to those who like them. Plant Roses, and when you come in tired, when work and affairs seem to go too fast, the blooming beauties will have a great influence, quietly, but none the less surely, smoothing your way for you. The Polyantha Roses, the Baby Ramblers, will make your Rose beds. The Climbers and Ramblers, will cover porches, trellises or fences. All the Ramblers bear their flowers in large clusters.

Prices of all kinds, 30 cts. each, $3 a dozen, $20 per 100

Baby Rambler. Dwarf plants, which are better for severe pruning. Flowers crimson-pink, coming all summer. Fine in groups of a dozen or two bushes; or for a hedge.

Philadelphia Rambler. Red of the most intense and lasting shade; flowers heavy and full, clusters are broad and thickly set. Will grow 10, 15 or more feet a season and will climb over anything.

Here is something we would like to see every farmer do—put an Evergreen screen between house and barn. There are twelve Norway and six Douglas Spruces in this planting, and they cost about $7 in good planting sizes. We recommend White Pine, Blue, Douglas and White Spruces, Nordmann's Fir, etc.

Also Crimson Rambler, Dorothy Perkins, General Jacqueminot, Gruss an Teplitz, Meteor, Sunset, American Beauty, Killarney and Blanche Moreau.

Rosa Rugosa. Rugosa Roses sometimes are called Wrinkled Japanese Roses, but really are large shrubs with spreading branches and lots of thorns. It is the leaves that are wrinkled. The flowers are either pink or white, 3 inches or more across, single and very showy. The fruit is bright red, very large, and bright all winter. We supply either pink or white as ordered.

HARDY NEW PEONIES

Bloom magnificently, thrive anywhere and have no serious enemies. You probably know the old kinds of Peonies, but these new kinds are so entirely different and so much finer that you will think them a new kind of flower.

PRICES OF ALL VARIETIES DESCRIBED IN THIS BOOK

These are retail prices, and a discount of 5 per cent is allowed from these figures when cash accompanies the order. We bale and box trees free, and deliver them to the railroad station at Berlin, but we do not prepay freight or express charges. Charge orders are accepted only from those known to us, or from those who give us good and sufficient reference with the order. All our stock is guaranteed to be entirely satisfactory, and we assure you that any order or letter you favor us with will receive prompt and careful attention and fair treatment. We refer you to our thirty and more years of business as our best recommendation to your confidence.

These prices apply to quantities as follows: 300 to 1,000 at 1,000 rate; 50 to 300 at 100 rate; 5 to 50 at 10 rate; 1 to 5 at 1 rate.

Miscellaneous Shade and Ornamental Trees

	Each	10
AILANTHUS		
Ailanthus glandulosa (Tree of Heaven).		
18 to 24 in.	$0 25	
2 to 3 ft.	35	
ASH		
Black. 8 to 10 ft.	1 25	$10 00
10 to 12 ft.	1 75	15 00
BEECH		
Purple. 3 to 4 ft.	75	6 00
4 to 5 ft.	1 00	8 00
5 to 6 ft.	2 00	18 00
BIRCH		
European. 8 to 10 ft.	2 00	17 50
10 to 12 ft.	2 50	20 00
12 to 14 ft.	3 00	25 00

CATALPA

	Each	10
Bungei. 3-year crowns, 6 ft. budded	$3 50	
speciosa. 4 to 5 ft.	40	$3 00
5 to 6 ft.	50	4 00
6 to 7 ft.	60	5 00
7 to 8 ft.	75	6 00
8 to 9 ft.	1 00	8 00
9 to 10 ft.	1 25	10 00
10 to 12 ft.	1 50	12 50

ELM

American. 6 to 7 ft.	75	6 00
7 to 8 ft.	1 50	12 50
8 to 10 ft.	2 00	18 00

GINGKO, or MAIDENHAIR TREE

2 to 3 ft.	50	4 00
3 to 4 ft.	75	6 00
4 to 5 ft.	1 00	7 50

HORSE-CHESTNUT

European. 4 to 5 ft.	50	4 00
5 to 6 ft.	75	6 00
6 to 7 ft.	1 00	8 00
7 to 8 ft.	1 25	10 00
White Horse-Chestnut, Double White Horse-Chestnut, and Red Horse-Chestnut.		
4 to 5 ft.	75	6 00
5 to 6 ft.	1 00	8 00
6 to 7 ft.	1 25	10 00

What you may do with Baby Rambler Roses such as we supply. Baby Ramblers are handsome in beds, but beautiful in hedges. Such a hedge costs about $1.50 per twenty-five feet. The bed shown here is worth about $5 Rose hedges must be supported on wire, or a good way is to let the Roses run over other hedges.

JUDAS TREE (Cercis)

	Each	10
Oriental Japonica. 6 to 7 ft.	$1 00	
Red Bud (*Cercis Canadensis*). 3 to 4 ft.	35	
4 to 5 ft.	50	
5 to 6 ft.	75	

LINDEN

American. 3 to 4 ft.	50	$4 00
4 to 5 ft.	60	5 00
5 to 6 ft.	75	6 00
7 to 8 ft.	1 25	
8 to 10 ft.	1 75	

LOCUST

Honey. 6 to 7 ft.	75	6 00
7 to 8 ft.	1 00	8 00
8 to 10 ft.	1 50	12 50
10 to 12 ft.	2 00	18 00

MAPLES

	Each	10	100	1,000
Ash-leaved, or Box Elder. 7 to 8 ft.	$0 30	$2 50	$20 00	$175 00
8 to 10 ft.	35	3 00	25 00	200 00
10 to 12 ft.	50	4 50	40 00	350 00
Colchicum, or Red. 5 to 6 ft.	1 00	8 00		
6 to 8 ft.	1 50	12 50		
Japanese. 12 in.	1 00	9 00		
Norway. 4 to 5 ft.	30	2 50	22 00	200 00
5 to 6 ft.	40	3 00	27 00	250 00
6 to 7 ft.	50	4 00	32 00	300 00
7 to 8 ft.	75	7 00	60 00	500 00
8 to 9 ft.	1 00	9 00	80 00	700 00
9 to 10 ft.	1 50	14 00	130 00	1,250 00
10 to 12 ft.	2 00			
12 to 14 ft.	3 00			
Prices on larger grades submitted on application				
Schwedler's. 4 to 5 ft.	75	6 00		
5 to 6 ft.	1 00	9 00		
Silver. 4 to 5 ft.	15	1 25	12 00	100 00
5 to 6 ft.	20	1 75	15 00	125 00
6 to 7 ft.	25	2 00	17 50	150 00
7 to 8 ft.	30	2 25	20 00	175 00
8 to 9 ft.	35	2 50	22 00	200 00
9 to 10 ft.	40	2 75	25 00	225 00
10 to 12 ft.	45	4 00	30 00	250 00
12 to 14 ft.	50	4 50		
Prices on larger grades submitted on application				
Sugar. 4 to 5 ft.	30	2 50	22 00	200 00
5 to 6 ft.	40	3 00	27 00	250 00
6 to 7 ft.	50	4 00	32 00	300 00
7 to 8 ft.	75	7 00	60 00	500 00
8 to 9 ft.	1 00	9 00	80 00	700 00
Wier's Cut-Leaf. 2 to 3 ft.	25	2 00		
5 to 6 ft.	50	4 00		
6 to 7 ft.	60	5 00		
7 to 8 ft.	75	6 50		
8 to 9 ft.	1 00	8 00		

OAK

	Each	10	100
White. 2 to 3 ft.	$0 50	$4 00	
3 to 4 ft.	75	6 00	
4 to 5 ft.	1 00	7 50	

ORIENTAL PLANE

	Each	10	100
6 to 7 ft.	$0 50	$4 50	$40 00
7 to 8 ft.	75	7 00	60 00
8 to 10 ft.	1 00	9 00	80 00
14 to 16 ft.	4 00	25 00	
16 to 18 ft.	5 00	40 00	

PECAN

2 to 3 ft.	50	4 00	
3 to 4 ft.	75	6 00	
7 to 8 ft.	1 50		
8 to 10 ft.	1 75		
10 to 12 ft.	2 00		

POPLAR

Carolina. 5 to 6 ft.	25	2 00	15 00
6 to 8 ft.	35	3 00	20 00
8 to 10 ft.	50	4 00	30 00
10 to 12 ft.	60		

PURPLE FRINGE

Smoke Tree. 2 to 3 ft.	50	4 00
3 to 4 ft.	75	
4 to 5 ft.	1 00	

TULIP TREE (Liriodendron)

Tulipifera. 6 to 7 ft.	75	6 00
7 to 8 ft.	1 00	8 00
8 to 10 ft.	1 75	15 00

WALNUT

Black. 4 to 5 ft.	50	4 00
5 to 6 ft.	75	6 00
6 to 7 ft.	1 00	7 50
7 to 8 ft.	1 25	10 00
8 to 10 ft.	1 50	12 50
English. 2 to 3 ft.	50	4 00
3 to 4 ft.	75	6 00
4 to 5 ft.	1 00	7 50

WILLOW

Babylonian. 2 to 3 ft.	25
3 to 4 ft.	35
4 to 5 ft.	50

This hedge is composed entirely of Norway Spruces heavily trimmed. It protects a garden in Wisconsin. There are seven hundred and forty feet in all, which required about $50 worth of Norway Spruce trees, 18 inches high. It makes a wonderfully effective feature of the place.

Evergreens

ARBORVITÆ

	Each	10	100
American. 12 to 18 in.	$0 35	$3 00	$18 00
18 to 24 in.	50	4 00	25 00
2 to 3 ft.	75	6 00	40 00
3 to 4 ft.	1 50	12 50	80 00
4 to 5 ft.	2 50	20 00	
5 to 6 ft.	3 50	30 00	
Globular. 18 to 24 in.	1 50	12 50	
2 to 3 ft.	2 00	18 00	
Oriental (*Biota Orientalis*). 2 to 3 ft.	75	6 50	60 00
3 to 4 ft.	1 50	12 50	
4 to 5 ft.	2 00	18 00	
5 to 6 ft.	3 50		
6 to 7 ft.	5 00		
Peabody's Golden. 12 to 18 in.	50	4 00	
18 to 24 in.	75	6 00	
2 to 3 ft.	1 25	10 00	
Pyramidal. 18 to 24 in.	50	4 50	40 00
2 to 3 ft.	75	6 50	60 00
3 to 4 ft.	1 50	12 50	
4 to 5 ft.	2 00	18 00	
5 to 6 ft.	3 50		
6 to 7 ft.	5 00		
Western. 2 to 3 ft.	1 00		
3 to 4 ft.	2 00		
4 to 5 ft.	3 00		

CEDAR

Blue Virginia (*Juniperus Virginiana glauca*). 18 to 24 in.	75	6 00	
Indian (*Cedrus Deodara*). 12 to 18 in.	50	4 00	
18 to 24 in.	75	6 00	
2 to 3 ft.	1 50	12 50	
3 to 4 ft.	2 50	20 00	
4 to 5 ft.	3 50		
5 to 6 ft.	4 50		
Red. 18 to 24 in.	30	2 50	20 00
2 to 3 ft.	50	4 50	40 00
3 to 4 ft.	1 00	8 00	
4 to 5 ft.	1 50	12 50	

CYPRESS

Glory of Boskoop. 2 to 3 ft.	1 50	12 50	
3 to 4 ft.	3 00	25 00	
4 to 5 ft.	4 00		
5 to 6 ft.	5 00		
Golden Plume-like. 18 to 24 in.	75	6 00	
2 to 3 ft.	1 50	12 50	
Japanese (*Retinospora obtusa*).			
18 to 24 in.	75	6 00	
2 to 3 ft.	1 50	12 50	
3 to 4 ft.	3 00	25 00	
4 to 5 ft.	5 00		

FIR

Cephalonian. 12 to 18 in.	50	4 00	30 00
Nordmann's. 12 to 18 in.	75	5 00	
18 to 24 in.	1 00	7 50	
2 to 3 ft.	2 50	20 00	
3 to 4 ft.	4 00		
White, or Concolor. 12 to 18 in.	75	5 00	
18 to 24 in.	1 00	7 50	
2 to 3 ft.	2 00		

HEMLOCK

	Each	10	100
Canadian. 12 to 18 in.	$0 50	$4 00	$30 00
18 to 24 in.	75	6 00	50 00
2 to 3 ft.	1 00	7 50	60 00
3 to 4 ft.	2 50	20 00	
4 to 5 ft.	5 00	40 00	
5 to 6 ft.	6 00		
6 to 7 ft.	7 00		

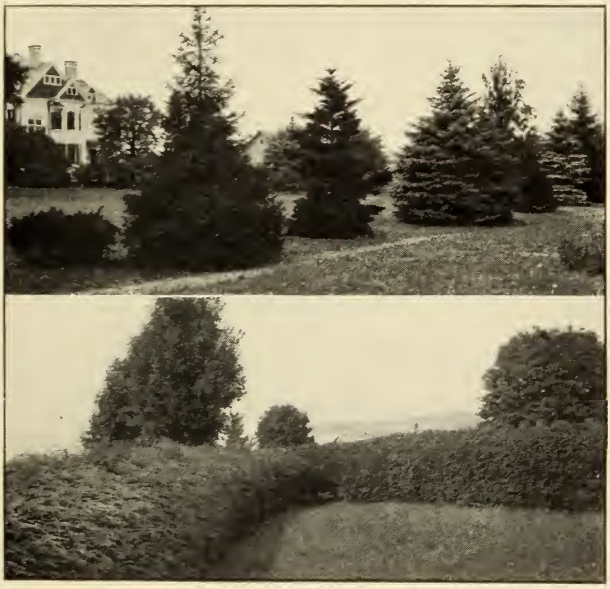
JUNIPER

Common. 2 to 3 ft.	1 00	9 00	
Douglas Golden. 12 to 18 in.	1 75		
Irish. 18 to 24 in.	50	4 50	40 00
2 to 3 ft.	75	6 00	
3 to 4 ft.	1 50	12 50	

PINE

Austrian. 12 to 18 in.	50	4 50	40 00
18 to 24 in.	75	6 00	55 00
2 to 3 ft.	1 00	7 50	65 00
Japanese Umbrella. 18 to 24 in.	2 00	18 00	
Scotch. 12 to 18 in.	50	4 50	40 00
18 to 24 in.	75	6 00	55 00
2 to 3 ft.	1 00	7 50	65 00
3 to 4 ft.	2 00	17 50	
4 to 5 ft.	3 00	25 00	
White. 12 to 18 in.	40	3 00	
18 to 24 in.	50	4 00	
2 to 3 ft.	75	6 00	
3 to 4 ft.	1 50	12 50	
4 to 5 ft.	2 50	20 00	

Upper picture shows our fine specimen evergreens, and the lower shows what you can do with Hemlock in making hedge. The trees should be planted about three feet apart, which would make the sixty feet of hedge shown in the picture cost about $10. This we consider to be the most beautiful hedge we know of.



RETINOSPORA

	Each	10
Pisifera aurea. 18 to 24 in.	$0 75	$6 00
Plumosa, or Japanese Plume Cypress.		
18 to 24 in.	1 00	7 50
2 to 3 ft.	1 25	10 00
3 to 4 ft.	2 00	15 00

SPRUCE

	Each	10	100	1,000
Colorado Blue. 12 to 18 in.	$1 00	$8 00		
18 to 24 in.	1 50	12 50		
2 to 3 ft.	2 00	18 00		
3 to 4 ft.	4 00	35 00		
4 to 5 ft.	6 00	55 00		
5 to 6 ft.	8 00	60 00		
Douglas. 12 to 18 in.	50			
18 to 24 in.	75			
2 to 3 ft.	1 00			
Koster's Blue. 12 to 18 in.	2 00			
18 to 24 in.	3 00			
2 to 3 ft.	4 00			
3 to 4 ft.	6 00			
Norway. 12 to 18 in.	20	1 75	$15 00	$125 00
18 to 24 in.	25	2 00	17 50	150 00
2 to 3 ft.	30	2 25	20 00	175 00
3 to 4 ft.	40	2 75	25 00	225 00
4 to 5 ft.	50	4 50	35 00	300 00
5 to 6 ft.	60	5 00	45 00	
6 to 7 ft.	75	7 00		
7 to 8 ft.	85	8 00		
8 to 10 ft.	1 00	9 50		
White. 12 to 18 in.	50	4 00		
18 to 24 in.	75	6 00		
2 to 3 ft.	1 00	8 00		

YEW

	Each	10	100
English. 18 to 24 in.	$1 00	$8 00	
2 to 3 ft.	1 75	15 00	
3 to 4 ft.	3 00		
Irish. 18 to 24 in.	2 00	18 00	

Shrubs

AZALEA

	Each	10	100
Amœna (Hardy Evergreen Azalea). 15 to 25 buds, 12 in.	$0 75	$6 00	$40 00
Japanese (*Azalea mollis*). 15 to 25 buds, 12 in.	75	6 00	40 00

CALYCANTHUS

2 to 3 ft.	25	2 00	18 00
3 to 4 ft.	50	4 00	30 00

DEUTZIA

Crenata candissima. 12 in.	25
18 to 24 in.	35
Flora alba plena. 18 to 24 in.	35
Crenata flore-pleno. 12 in.	25
2 to 3 ft.	50
3 to 4 ft.	75
Crenata, Pride of Rochester. 2 to 3 ft.	25

EUONYMUS

	Each	10	100
2 to 3 ft.	$0 75	$6 00	
3 to 4 ft.	1 00	7 50	
4 to 5 ft.	1 50	12 50	
5 to 6 ft.	1 75	15 00	

FORSYTHIA

Fortunei (Fortune's Golden Bell).			
18 to 24 in.	35		
2 to 3 ft.	50		
Viridissima. 2 to 3 ft.	50		
Golden Chain. 2 to 3 ft.	50		

HYDRANGEA

Blue	50		
Paniculata grandiflora. 4 to 5 ft.	1 00		

LAUREL

Cherry. 18 to 24 in.	1 25		
Mountain. 1 ft.	50	4 00	

MAGNOLIA

Hall's Japan (Starry Magnolia).			
2 to 3 ft.	1 00	8 00	
Soulange's. 2 to 3 ft.	1 00	7 50	
4 to 5 ft.	2 00	18 00	

MOCK ORANGE

Large-leaved. 2 to 3 ft.	25		
3 to 4 ft.	50		

MOUNTAIN FETTER BUSH

1 ft.	50	4 00	

PHILADELPHUS

Coronarius. 12 in.	25		

RHODODENDRON

Catawba. 18 to 24 in.	1 00	9 00	$80 00
Ponticum. 18 to 24 in.	1 00	9 00	80 00
Purple. 18 to 24 in.	1 00	9 00	80 00

ROSE OF SHARON (Althea)

2 to 3 ft.	25	2 00	18 00
3 to 4 ft.	35	3 00	25 00
4 to 5 ft.	75	6 00	50 00

SNOWBALL

Japanese. 4 to 5 ft.	75	6 00	
6 to 7 ft.	1 00	7 50	

SPIRÆA

Arguta multiflora. 18 to 24 in.	25		
Opulifolia. 18 to 24 in.	25		
Prunifolia. 18 to 24 in.	25		
Van Houttei. 2 to 3 ft.	25	2 25	
3 to 4 ft.	35	3 00	

WEIGELAS

Amabilis. 18 to 24 in.	25		
Amabilis alba. 12 in.	25		
Eva Rathke. 18 to 24 in.	25		
Rosea. 18 to 24 in.	25		

Hedge Plants

BARBERRY

	Each	10	100
Thunberg's. 12 to 18 in.	$0 20	$1 50	$12 50
18 to 24 in.	25	2 00	15 00
2 to 3 ft.	35	3 00	20 00

BOXWOOD

4 to 6 in.	20	1 50	12 50
6 to 8 in.	25	2 00	17 50
8 to 10 in.	30	2 50	20 00
18 to 24 in.	60	5 00	45 00

PRIVET

	10	100	1,000
California. 6 to 12 in.	$0 30	$1 50	$10 00
1 to 1½ ft.	40	2 00	15 00
1½ to 2 ft.	50	2 50	20 00
2 to 3 ft.	60	3 00	25 00
3 to 4 ft.	75	4 00	35 00
4 to 5 ft.	1 00	5 00	45 00
5 to 6 ft.	1 25	6 00	55 00
6 to 7 ft.	1 50	8 00	75 00
7 to 8 ft.	1 75	11 00	100 00

Vines and Miscellaneous Flowers

	Each
Clematis	$0 50
Wistaria	75
Bleeding Heart	25
Phlox, White	25
Red	25

Roses

All varieties, except *Rosa rugosa*, 30 cts. each, $3 per doz., $20 per 100

	Each	Doz.	100
Rosa rugosa. 2 to 3 ft.	$0 40	$ 3 00	$25 00
3 to 4 ft.	50	4 00	30 00
4 to 5 ft.	60	5 00	40 00

Hardy New Peonies

Assorted varieties, 50 cts. each, $4 for 10, $25 per 100

We Sell Only Trees We Grow

Beginning this season every tree sold by Harrison's Nurseries will be Harrison-grown. From the roots to buds it will be a Harrison product.

Trees grown in the Harrison way are to be depended on —they have the roots, the vigor and vitality to live and thrive wherever they are given a chance.

Harrison trees are **true to name.** If we are out of a variety, we frankly say so. We will **not** substitute another variety except on the expressed order of the customer, and then only from our own stock.

We will not expose our customers to possibility of error in variety, or lack of quality in the trees, by filling through other nurseries orders which we cannot fill ourselves.

Hereafter under no circumstances will we sell or offer for sale any nursery stock not grown on our own land under our own direction.

This is for your protection and for our own. Every tree you buy from us is Harrison-grown and is so guaranteed. You **know** that it will prove to be just what it is sold for.

TABLE OF CONTENTS

	Page
Why it Pays to Plant Shade Trees and Evergreens	3
The Cash Value of Shade Trees	3
The Real, The Big Benefits	4
The Comfort of Maples on a Hot Day	5
Shade Trees and Cool Sleeping-Rooms	6
What Shade Trees Protect and Save	8
Help to Gardens with Shade Trees	9
Colors and Fragrance of Some Shade Trees	10
Three Suggestions for Farms	11
The Comparative Cost of Hedges for Fences	12
How to Grow Perfect Hedges; to Plant and Trim	14
People Who Most Need Privet Hedges	15
Clean Up Rubbish Piles and Plant Trees and Hedges	16
Public Parks, Squares and School Grounds	16
Educate the People of Your Community	17
How We Can Help You Plant Trees and Hedges	18
What Trees to Plant along Your Street	20
The Great Good of Evergreens about Homes	20
Where and When to Plant Evergreen Hedges	20
Why Forest Trees Will Not Do for Home Planting	21
Increase in Value of Property from Planting	22
Helps for Those Who Plant	23
Character of the Place to be Planted	24
Forms Which Planting May Take	29
How to Plant	32
Shade Trees, Maple, etc	36
Miscellaneous Shade Trees	39
Evergreens	42
Evergreen Hedge Plants	49
Hedge Plants	50
Shrubs	52
Vines	54
Roses	55
Hardy New Peonies	56
Prices	56

INDEX

	Page
Arborvitæ	45
Ash, Black	39
Barberry	52
Beeches	39
Birch	40
Box Elder	38
Boxwood	52
Catalpa	40
Cedar	47
Chestnut	40
Chicken-yard Shade	11
Colors in Leaves	10, 30
Cool Sleeping-rooms	6, 7
Cost of Hedge	12, 13
Cypress	47
Elm	40
Evergreens	20
Evergreens, Hedge	20
Field Protection	9, 10
Fir	46
Fire Protection	8
Frost Prevention	9, 10
Ginkgo Tree	40
Garden Protection	9, 10
Grass and Shade	5, 6
Ground Cover	30
Heating House	8, 9
Hedges	15, 30
Hemlock	44
Homes for Birds	30
How to Plant Trees	32
How to Grow Hedge	14
Juniper	48
Landscape Beauty	30
Landscape Gardening	18
Laundry Screens	9
Laurel	49
Linden	40
Live Fences	30
Locust	40
Maples	36
Moisture Saving	9, 10
Oak	41
Paint Protection	8
Parks	16
Pasture Shade	11
Pecan	41
Peonies	56
Pine	44
Privet Hedge	5, 12, 49
Plane Tree	41
Planning to Plant	18
Plant, How to	23
Retinospora	47
Rhododendron	49
Roses	55
School Grounds	16
Screens	8, 30
Selection of Trees	19, 23
Shelter Belts	9, 10, 30
Single Specimens	30
Snow-break	8
Spruce	43
Street Trees	20
Timber Planting	11, 30
Trimming Hedge	13, 14
Vines	54
Walnut	41
Warmer Houses	8, 9
What to Plant	24, 25
Wild Trees	21
Windbreaks	9, 10

McFarland Publicity Service, Harrisburg, Pa.

Harrison's Nurseries

J. G. HARRISON & SONS, Proprietors

BERLIN, MARYLAND